CURRÍCULUM VÍTAE NORMALIZADO

BENJAMIN PIERRE PAUL IVORRA

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GOBIERNO DE ESPAÑA
MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

FECYT INNOVACIÓN

Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

From 2003 to 2006, I pursued a Ph.D. in applied mathematics at the University of Montpellier 2, France, under Prof. Bijan Mohammadi. Financial support came from a 'Allocataire de Recherche,' equivalent to an FPU grant. During this period, I focused on optimization methods, mathematical modeling (finance, fluid mechanics, and fiber optics), and numerical analysis. In 2005, I spent six months at BNP-PARIBAS as a research fellow, developing a loan portfolio optimization program. The successful completion of my Ph.D. earned a Très Honorable (Cum Laude) mention.

Joining the Complutense University of Madrid (UCM) in 2006, I progressed to Full Professor (CU) since 2022. Since joining UCM, I have played an integral role in the MOMAT research group and the Interdisciplinary Mathematical Institute. Leveraging these structures and establishing connections with new collaborators, I ventured into novel research domains with significant implications for Spanish society. This included the exploration of models in veterinary and human epidemiology, with a particular focus on aspects related to COVID-19. These efforts yielded positive outcomes, resulting in the receipt of the Complutense COVID-19 Research Award. Furthermore, I delved into the study of protein folding processes under High-Pressure/Temperature treatments, an area where Spain holds a prominent position as a global leader. Additionally, I contributed my expertise in optimization and numerical techniques to these groups, building upon my ongoing research initiated during my Ph.D. studies. Exploring new challenges, such as the design of structures and the decontamination of oil spills in open seas, allowed me to establish meaningful connections between these issues and real-world applications. I would like to emphasize that the diverse range of research topics I have undertaken is a result of indispensable collaborations, both in Spain and internationally, with professors across various scientific disciplines. These collaborations encompass experts from fields such as veterinary sciences, chemistry, and civil engineering. Notably, I have had the privilege of working alongside esteemed individuals like the late Prof. Roland Glowinski (1937-2022) from the University of Houston. The success of this collaborative effort is reflected in the variety of journals where our work has been published, spanning not only mathematics but also other fields such as veterinary sciences and analytical chemistry. Thanks to these connections, I have had the opportunity to undertake research stays, totaling 15 visits since completing my doctorate, at various research centers in Spain and abroad, including Chile, Mexico, the USA, and France. This extensive body of work has unfolded within the framework of numerous research projects, totaling 17 projects in all, three as the Principal Investigator and 14 as a collaborating member. These projects have received funding both in Spain and internationally, including support from the European Union's Horizon 2020 program, as well as Chile, Mexico, and France. Additionally, I have actively participated in three contractual collaborations with companies based in Spain and Mexico. Notably, two of these agreements focused on analyzing environmental risks associated with oil wells in the Gulf of Mexico. Some of the results obtained have led to the publication of 48 articles in international journals with a

relative quality index (44 in the Journal Citation Reports (JCR): 27 in Q1, 12 in Q2, 5 in Q3/Q4). Additionally, to ensure widespread dissemination, I have contributed to 26 articles in book chapters, proceedings, and pre-publications, with the majority freely accessible. In order to enhance the visibility of these works, I have participated in 36 conferences and delivered 28 seminars. Throughout my career, I have provided supervision for five doctoral theses, each distinguished with a Cum Laude qualification. Complementing my research experience, I actively engage with the international scientific community by undertaking evaluations for journals, projects, and doctoral theses. Furthermore, I serve on the editorial committees of journals listed in the JCR.

In the realm of teaching, I boast over 15 academic years of experience within the Spanish university system, delivering nearly 2300 hours of instruction in the field of Mathematics. Of this total, I have devoted 1,350 hours to nine Undergraduate Degrees subjects and 1,250 hours to eight Master's Degrees. My teaching prowess has been acknowledged through excellent evaluations accredited by the UCM DOCENTIA program.
Furthermore, I have directed 31 TFMs and 5 TFGs, showcasing my commitment to guiding and mentoring students. Lastly, I have contributed as a collaborating researcher in two teaching innovation projects, solidifying my dedication to advancing both research and education.

I currently have three six-year research periods (Sexenios): 2004-2009, 2010-2015, and 2016-2021.

General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

A) 3 sexenios de investigación: 2004-2009, 2010-15 y 2016-21

B) Datos globales del WoS (JCR) al 06/09/2023 (ver https://publons.com/researcher/1392672):

Publicaciones indexadas: 49
Citas: 981
Promedio anual de citas periodo (2017-2021): 90.4
Índice h: 17

De cuáles 44 artículos publicados en revistas con índice de impacto en el JCR repartidos de la forma siguiente:
• En Cuartiles: 27 en Q1, 12 en Q2, 4 en Q3 y 1 en Q4.
• En Terciles: 34 en T1, 9 en T2 y 1 en T3.

BENJAMIN PIERRE PAUL IVORRA

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Current professional situation

Employing entity: Universidad Complutense de Madrid **Type of entity:** University

Department: Análisis Matemático y Matemática Aplicada, Facultad de Ciencias Matemáticas

Professional category: Catedrático de Universidad **Leadership and management (Y/N):** Yes

City employing entity: Spain

Phone: 913944415

Start date: 01/10/2022

Type of contract: Civil servant **Dedication regime:** Full time

Primary (UNESCO code): 120309 - Computer-assisted design; 120326 - Simulation; 120601 - Algorithm construction; 120602 - Differential equations; 120700 - Operations research

Identify key words: Operative research and mathematic programming; Difference equations; Mathematical programming, optimal and variational techniques; Fluid dynamics; Numerical simulation; Clinical medicine and epidemiology

Area of leadership and/or management activity: University

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad Complutense de Madrid	Profesor Titular de Universidad	24/04/2018
2	Universidad Complutense de Madrid	Profesor Contratado Doctor	01/10/2013
3	Universidad Complutense de Madrid	Ayudante Doctor	31/10/2008

	Employing entity	Professional category	Start date
4	Universidad Complutense de Madrid	Ayudante	30/10/2006
5	Universidad de Montpellier 2	Attaché Temporaire d´Enseignement et de Recherche (ATER)	01/09/2006
6	Universidad de Montpellier 2	Allocataire de Recherche	01/10/2003
7	Banco BNP-Paribas	Becario de investigación	01/10/2005
8	Universidad de Montpellier 2	Becario emérito del Máster en Matemáticas	29/11/2002

1 **Employing entity:** Universidad Complutense de Madrid **Type of entity:** University
Professional category: Profesor Titular de Universidad
Start-End date: 24/04/2018 - 30/09/2022

2 **Employing entity:** Universidad Complutense de Madrid **Type of entity:** University
Professional category: Profesor Contratado Doctor
Start-End date: 01/10/2013 - 23/04/2018
Type of contract: Permanent employment contract
Dedication regime: Full time

3 **Employing entity:** Universidad Complutense de Madrid **Type of entity:** University
Professional category: Ayudante Doctor **Leadership and management (Y/N):** Yes
Start-End date: 31/10/2008 - 30/09/2013 **Duration:** 5 years
Type of contract: Temporary employment contract
Dedication regime: Full time

4 **Employing entity:** Universidad Complutense de Madrid **Type of entity:** University
Professional category: Ayudante **Leadership and management (Y/N):** Yes
Start-End date: 30/10/2006 - 30/10/2008 **Duration:** 2 years
Type of contract: Temporary employment contract
Dedication regime: Full time

5 **Employing entity:** Universidad de Montpellier 2
Department: Instituto de Matemáticas y Modelización de Montpellier, Universidad de Montpellier 2
City employing entity: Montpellier, Languedoc-Roussillon, France
Professional category: Attaché Temporaire d ´Enseignement et de Recherche (ATER) **Leadership and management (Y/N):** Yes
Start-End date: 01/09/2006 - 29/10/2006 **Duration:** 1 month - 29 days
Type of contract: Temporary employment contract
Dedication regime: Part time

6 **Employing entity:** Universidad de Montpellier 2 **Type of entity:** University
Department: Instituto de Matemáticas y Modelización de Montpellier
City employing entity: Montpellier, Languedoc-Roussillon, France
Professional category: Allocataire de Recherche **Leadership and management (Y/N):** Yes
Start-End date: 01/10/2003 - 31/08/2006 **Duration:** 3 years
Type of contract: Temporary employment contract
Dedication regime: Full time

7 **Employing entity:** Banco BNP-Paribas
Department: Departamento Asset Management - BFI Paris
City employing entity: Paris, Île de France, France
Professional category: Becario de investigación **Leadership and management (Y/N):** No
Start-End date: 01/10/2005 - 01/04/2006 **Duration:** 6 months
Type of contract: Temporary employment contract
Dedication regime: Full time

8 **Employing entity:** Universidad de Montpellier 2 **Type of entity:** University
Department: Escuela Doctoral I2S -
City employing entity: Montpellier, Languedoc-Roussillon, France
Professional category: Becario emérito del Máster en Matemáticas **Leadership and management (Y/N):** No
Start-End date: 29/11/2002 - 30/07/2003 **Duration:** 8 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)

Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 **University degree:** Higher degree
Name of qualification: Máster en Ciencias Matemáticas
City degree awarding entity: Montpellier, Languedoc-Roussillon, France
Degree awarding entity: Université de Montpellier 2
Date of qualification: 2003
Average mark: Good

2 **University degree:** Higher degree
Name of qualification: Licenciado en Ciencias Matemáticas
City degree awarding entity: Montpellier, Languedoc-Roussillon, France
Degree awarding entity: Université de Montpellier 2 **Type of entity:** University
Date of qualification: 2002
Average mark: Good

Doctorates

1 **Doctorate programme:** Habilitation à Diriger des Recherches en Mathématiques Appliquées et Applications des Mathématiques
Degree awarding entity: Université de Montpellier 2 **Type of entity:** University
City degree awarding entity: Montpellier, Languedoc-Roussillon, France
Date of degree: 07/02/2013
Thesis title: Méthodes et techniques de modélisation, de simulation et d´optimisation appliquées à divers problèmes industriels
Obtained qualification: Aprobado (existen dos calificaciones: Aprobado y Suspenso)

2 **Doctorate programme:** Doctor en Ciencias Matemáticas
Degree awarding entity: Université de Montpellier 2
City degree awarding entity: Montpellier, Languedoc-Roussillon, France
Date of degree: 09/06/2006
DEA awarding entity: Université de Montpellier 2
Date DEA was awarded: 2003
Thesis title: OPTIMISATION GLOBALE SEMI-DETERMINISTE ET APPLICATIONS INDUSTRIELLES
Thesis director: BIJAN MOHAMMADI
Obtained qualification: Sobresaliente cum laude
Standardised degree: Yes **Date of standardisation:** 18/10/2006

Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

1 **Type of training:** Course
Training title: Introducción a la Modelización Numérica con COMSOL Multiphysics
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Emilio Ruiz Reina
End date: 05/12/2019 **Duration in hours:** 20 hours

2 **Type of training:** Course
Training title: Mathematical modeling in neurosciences
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Jacques Henry
End date: 04/05/2009 **Duration in hours:** 10 hours

3 **Type of training:** Course
Training title: Some Mathematical Models related to fluids and heat conduction: the Boussinesq problema
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Jean-Michel Rakotoson
End date: 01/07/2008 **Duration in hours:** 20 hours

4 **Type of training:** Course
Training title: Numerical methods for Nonlineal Elliptic Problems
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Roland Glowinski
End date: 05/05/2008 **Duration in hours:** 10 hours

5 **Type of training:** Course
Training title: EPICASA07 - Introduction à l'épidémiologie: modèles et méthodes mathématiques et statistiques
City awarding entity: Morocco
Awarding entity: Université de Casablanca
Aims of the entity: Curso en epidemiologia
End date: 19/11/2007 **Duration in hours:** 75 hours

6 **Training title:** Diploma de Español como Lengua Extranjera (D.E.L.E.) nivel superior
Awarding entity: Instituto Cervantes **Type of entity:** Instituto Cervantes
End date: 06/08/2007

7 **Type of training:** Course
Training title: Métodos Numéricos del Álgebra Lineal en Paralelo
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Susana Gómez
End date: 27/05/2007 **Duration in hours:** 14 hours

8 **Type of training:** Course
Training title: Mecánica de Fluidos y Coordenadas de Lagrange
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Training manager: Sergei Shmarev
End date: 01/02/2007 **Duration in hours:** 10 hours

9 **Type of training:** Course
Training title: Curso de Inglés orientado a doctores
City awarding entity: France
Awarding entity: Universidad de Montpellier 2
End date: 01/11/2005 **Duration in hours:** 56 hours

10 **Type of training:** Practical work
Training title: Optoélectronique et hyperfréquences pour télécommunications
City awarding entity: France
Awarding entity: Universidad de Montpellier 2
Aims of the entity: Prácticas con fibras óptica
End date: 09/05/2005 **Duration in hours:** 25 hours

11 **Type of training:** Course
Training title: Shape Optimization
City awarding entity: Germany
Awarding entity: Mathematisches Forschungsinstitut Oberwolfach **Type of entity:** R&D Centre
End date: 07/11/2004 **Duration in hours:** 30 hours

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Spanish		C1	C1	C1	C1
French		C1	C1	C1	C1
English		C1	C1	C1	C1

Teaching experience

General teaching experience

1 **Type of teaching:** Official teaching
Name of the course: Técnicas Numéricas
Type of programme: Master's degree **Type of teaching:** In person theory
Type of subject: Obligatory
Assessment type: External assessment
University degree: Máster en Tratamiento Estadístico-Computacional de la Información
Frequency of the activity: 14
Start date: 20/09/2010 **End date:** 01/10/2024
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 30
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Assessment type: External assessment
Type of entity: Pública

Mark obtained: 90.82 **Top mark possible:** 100

2 **Type of teaching:** Official teaching
Name of the course: Programación con COMSOL API y MATLAB
Type of programme: Máster Propio **Type of teaching:** In person theory
Type of subject: Obligatory
Assessment type: External assessment
University degree: Máster Propio Universitario en Simulación Numérica en Ciencia e Ingeniería con Comsol Multiphysics
Frequency of the activity: 4
Start date: 18/11/2019 **End date:** 05/05/2024
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 15
Entity: Universidad de Málaga **Type of entity:** University
Assessment type: External assessment

3 **Type of teaching:** Official teaching
Name of the course: REDES NEURONALES Y COMPUTACIÓN PARALELA
Type of programme: Master's degree **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Máster en Ingeniería Matemática
Frequency of the activity: 4
Start date: 01/04/2021 **End date:** 20/04/2024
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 15
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Agencia Nacional
Mark obtained: 90.82 **Top mark possible:** 100

4 **Type of teaching:** Official teaching
Name of the course: MODELIZACIÓN Y SIMULACIÓN EN SISTEMAS DINÁMICOS
Type of programme: Master's degree **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Máster en Ingeniería Matemática
Frequency of the activity: 4
Start date: 01/04/2021 **End date:** 01/03/2024
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 20
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Agencia Nacional
Mark obtained: 90.82 **Top mark possible:** 100

5 **Type of teaching:** Official teaching
Name of the course: Cálculo
Type of programme: Engineering **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Grado en Ingeniería Informática

Course given: 1 año
Frequency of the activity: 3
Start date: 01/10/2020
End date: 15/12/2022
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 60
Entity: Universidad Complutense de Madrid
Type of entity: University
Faculty, institute or centre: Facultad de Informática
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Agencia Nacional
Mark obtained: 90.82
Top mark possible: 100
Subject language: English

6 **Type of teaching:** Official teaching
Name of the course: Modelización y Simulación de Procesos
Type of programme: Master's degree
Type of teaching: In person theory
Type of subject: Obligatory
University degree: Máster Universitario en Ingeniería Química: Ingeniería de Procesos
Frequency of the activity: 6
Start date: 01/09/2017
End date: 29/10/2022
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 30
Entity: Universidad Complutense de Madrid
Type of entity: University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Agencia Nacional
Mark obtained: 90.82
Top mark possible: 100

7 **Type of teaching:** Official teaching
Name of the course: Estadística Aplicada Y Cálculo Numérico
Type of programme: Bachelor's degree
Type of teaching: In person theory
Type of subject: Obligatory
Assessment type: External assessment
University degree: Grado en Química
Course given: 1 año
Frequency of the activity: 4
Start date: 15/02/2017
End date: 21/05/2021
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 52,5
Entity: Universidad Complutense de Madrid
Type of entity: University
Faculty, institute or centre: Facultad de Ciencias Químicas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Assessment type: External assessment
Type of entity: State agency
Mark obtained: 90.82
Top mark possible: 100
Subject language: Spanish

8 **Type of teaching:** Official teaching
Name of the course: Simulación Numérica en Ordenadores Paralelos
Type of programme: Master's degree
Type of teaching: In person theory
Type of subject: Obligatory
University degree: Máster en Ingeniería Matemática
Frequency of the activity: 7
Start date: 01/05/2014
End date: 01/06/2020

Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 15
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas

9 **Type of teaching:** Official teaching
Name of the course: Métodos matemáticos de la ingeniería
Type of programme: Engineering **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Grado en Ingeniería Informática
Course given: 1 año **Frequency of the activity:** 6
Start date: 01/10/2013 **End date:** 30/01/2019
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 60
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Informática
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Pública
Mark obtained: 83.63 **Top mark possible:** 100
Subject language: English

10 **Type of teaching:** Official teaching
Name of the course: Matemáticas II
Type of programme: Grado **Type of teaching:** In person theory
Type of subject: Obligatory
University degree: Grado en Ingeniería Química
Frequency of the activity: 1
Start date: 25/09/2017 **End date:** 25/01/2018
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 45
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Químicas

11 **Type of teaching:** Official teaching
Name of the course: Proyectos de la Modelling Week UCM
Type of programme: Master's degree **Type of teaching:** Laboratory work
Type of subject: Optional
University degree: Máster Universitario en Ingeniería Matemática
Frequency of the activity: 6
Start date: 22/06/2009 **End date:** 22/06/2017
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 20
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas

12 **Type of teaching:** Official teaching
Name of the course: Física: Mecánica Y Ondas
Type of programme: Bachelor's degree **Type of teaching:** Practical work (classroom-problems)
Type of subject: Core
University degree: Grado en Matemáticas
Course given: 2 año **Frequency of the activity:** 6

Start date: 24/02/2013 **End date:** 31/05/2016
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 30
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Agencia Nacional
Mark obtained: 65.25 **Top mark possible:** 100

13 **Type of teaching:** Official teaching
Name of the course: Matemáticas
Type of programme: Bachelor's degree **Type of teaching:** In person theory
Type of subject: Obligatory
Assessment type: External assessment
University degree: Grado en Química
Course given: 1 año **Frequency of the activity:** 6
Start date: 28/09/2009 **End date:** 27/01/2016
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 77
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Químicas
Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Assessment type: External assessment
Type of entity: Pública
Mark obtained: 88.80 **Top mark possible:** 100
Subject language: Spanish

14 **Type of teaching:** Official teaching
Name of the course: Curso de Formación al COMSOL MULTIPHYSICS: Introducción, interacción con MATLAB y resolución de problemas de optimización
Type of programme: Doctorate **Type of teaching:** Practical work (classroom-problems)
Type of subject: Doctorate
University degree: Curso de doctorado en Matemáticas
Frequency of the activity: 2
Start date: 11/02/2013 **End date:** 15/02/2015
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 10
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas

15 **Type of teaching:** Official teaching
Name of the course: Análisis Numérico
Type of programme: Bachelor's degree **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
University degree: Grado en Matemáticas
Course given: 3 año **Frequency of the activity:** 1
Start date: 24/02/2013 **End date:** 31/05/2013
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 30
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas

Assessment entity: Agencia Nacional de Evaluación de la Calidad y Acreditación
Type of entity: Pública
Mark obtained: 64.89 **Top mark possible:** 100

16 **Type of teaching:** Unofficial teaching
Name of the course: Numerical Modeling Of Coupled Partial Differential Equations
Type of programme: Doctorate **Type of teaching:** Laboratory work
Type of subject: Formación personal
University degree: Curso de libre participación
Frequency of the activity: 2
Start date: 24/06/2011 **End date:** 24/06/2011
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 5
Entity: Institut National de la Recherche Agronomique de Montpellier
City of entity: Montpellier, Languedoc-Roussillon, France
Subject language: English

17 **Type of teaching:** Official teaching
Name of the course: Sistemas Dinámicos
Type of programme: Master's degree **Type of teaching:** In person theory
Type of subject: Optional
University degree: Máster Universitario en Investigación Matemática
Frequency of the activity: 3
Start date: 12/10/2009 **End date:** 15/03/2011
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 20
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas

18 **Name of the course:** Matemáticas II
Type of programme: Engineering **Type of teaching:** Laboratory work
Type of subject: Obligatory
University degree: Licenciatura en Ingeniería Química
Course given: 1 año **Frequency of the activity:** 1
Start date: 28/09/2009 **End date:** 20/01/2010
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 15
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Químicas
Subject language: Spanish

19 **Type of teaching:** Official teaching
Name of the course: Análisis Numérico
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
University degree: Licenciatura en Ingeniería Informática
Course given: 1 año **Frequency of the activity:** 1
Start date: 20/02/2009 **End date:** 08/06/2009
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 15
Entity: Universidad Complutense de Madrid **Type of entity:** University

Faculty, institute or centre: Facultad de Informática
Subject language: Spanish

20 **Type of teaching:** Official teaching
Name of the course: Métodos Numéricos
Type of programme: Bachelor's degree **Type of teaching:** In person theory
Type of subject: Obligatory
Assessment type: Survey
University degree: Licenciatura en Ciencias Matemáticas
Course given: 2 año **Frequency of the activity:** 3
Start date: 19/02/2007 **End date:** 08/06/2009
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 75
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Ciencias Matemáticas
Assessment entity: Universidad Complutense de Madrid
Assessment type: Survey
Type of entity: University
Mark obtained: 5.9 **Top mark possible:** 7
Subject language: Spanish

21 **Type of teaching:** Unofficial teaching
Name of the course: Optimization techniques for industrial applications
Type of programme: Doctorate **Type of teaching:** In person theory
Type of subject: Modular
University degree: Curso de doctorado en Matemáticas
Frequency of the activity: 1
Start date: 01/07/2007 **End date:** 01/08/2007
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 10
Entity: Universidad de Chile **Type of entity:** University
City of entity: Santiago de Chile, Chile
Subject language: Spanish

22 **Type of teaching:** Official teaching
Name of the course: Análisis Numérico
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
University degree: Licenciatura en Ingeniería Informática
Course given: 1 año **Frequency of the activity:** 1
Start date: 01/11/2006 **End date:** 30/01/2007
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 30
Entity: Universidad Complutense de Madrid **Type of entity:** University
Faculty, institute or centre: Facultad de Informática
Subject language: Spanish

23 **Type of teaching:** Official teaching
Name of the course: Matemáticas
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory

University degree: Licenciatura en Ingeniería en Materiales
Course given: 3 año
Frequency of the activity: 1
Start date: 01/09/2006
End date: 30/10/2006
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 20
Entity: Ecole Polytechnique Universitaire De Montpellier
City of entity: Montpellier, Languedoc-Roussillon, France
Subject language: French

24 **Type of teaching:** Official teaching
Name of the course: Métodos de Cálculo con Ordenadores
Type of programme: Bachelor's degree
Type of teaching: Laboratory work
Type of subject: Obligatory
University degree: Licenciatura en Mecánica
Course given: 1 año
Frequency of the activity: 1
Start date: 10/01/2005
End date: 30/01/2005
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 24
Entity: Ecole Polytechnique Universitaire De Montpellier
City of entity: Montpellier, Languedoc-Roussillon, France
Subject language: French

25 **Type of teaching:** Official teaching
Name of the course: Matemáticas
Type of programme: Bachelor's degree
Type of teaching: Practical work (classroom-problems)
Type of subject: Core
University degree: Licenciatura en Matemática, Informática y Física
Course given: 2 año
Frequency of the activity: 1
Start date: 01/02/2004
End date: 30/05/2004
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 25
Entity: Universidad de Nîmes
City of entity: Nîmes, Languedoc-Roussillon, France
Subject language: French

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** Analyse et contrôle de modèles épidémiologiques: Applications au virus Ébola et au Paludisme
Type of project: Doctoral thesis
Co-director of thesis: Mamadou Sy; Diene Ngom
Entity: Université Gaston Berger
City of entity: Saint-Louis, Senegal
Student: Rama Seck
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 17/08/2023

2 **Project title:** Estudio de modelos de "Machine Learning" y "Deep Learning" para problemas de clasificación
Type of project: Trabajo de Fin de Master
Entity: Universidad Complutense de Madrid
Type of entity: University
Student: Alejandro Lostado Salvatierra

Obtained qualification: 9/10
Date of reading: 01/07/2023

3 **Project title:** Optimization of n-PERT solar cell under Atacama Desert Solar Spectrum
Type of project: Trabajo de Fin de Máster
Co-director of thesis: Miriam Ruiz Ferrández
Entity: Universidad de Málaga **Type of entity:** University
Student: Pablo Ferrada Martínez
Obtained qualification: 10/10
Date of reading: 15/07/2022

4 **Project title:** Tecnicas de “Machine Learning” para el tratamiento de estructuras robustas. Un primer intento
Type of project: Trabajo de Fin de Master
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Andrea Aceituno Muriel
Obtained qualification: 9/10
Date of reading: 01/07/2022

5 **Project title:** Modelo del impacto de las variantes del SARS-CoV-2 y las vacunas en la propagación del COVID-19. Aplicación al caso de la Región de Murcia.
Type of project: Trabajo de Fin de Master
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Pedro Ignacio Rodríguez García
Obtained qualification: 8.5/10
Date of reading: 29/09/2021

6 **Project title:** Modelo matemático de propagación de la COVID-19. Aplicación al caso de la Comunidad de Madrid.
Type of project: Trabajo de Fin de Master
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Rafael Herrera Troca
Obtained qualification: 8/10
Date of reading: 29/09/2021

7 **Project title:** Compressed Sensing para adquisición sísmica
Type of project: Trabajo de Fin de Grado
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Francisco Javier Gutiérrez Oliet
Obtained qualification: 9.5/10
Date of reading: 20/09/2021

8 **Project title:** Estimación de parámetros para un modelo matemático de propagación de enfermedades humanas. Aplicación a la epidemia reciente del Coronavirus.
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Alicia Reinaldos Manzanares
Obtained qualification: 9/10
Date of reading: 19/07/2021

9 **Project title:** Modelización de la evolución de manchas de petróleo en alta mar
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Francisco Antonio de la Asunción Castello
Obtained qualification: 9/10
Date of reading: 02/03/2021

10 **Project title:** Resolución Numérica de Juegos Diferenciales Deterministas y Estocásticos en Equilibrios de Nash
Type of project: Doctoral thesis
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Jorge Herrera de la Cruz
Obtained qualification: Cum Laude
Date of reading: 05/11/2020
Quality recognition: Yes

11 **Project title:** Modelización y simulación en epidemiología. Aplicación a casos reales
Type of project: Trabajo de Fin de Grado
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: María José Belda Beneyto
Obtained qualification: 9/10
Date of reading: 22/10/2020

12 **Project title:** Modelo matemático para estudiar la expansión del COVID-19. Aplicación al caso de Corea del Sur
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Cheng Li
Obtained qualification: 9/10
Date of reading: 17/09/2020

13 **Project title:** Optimización de sistemas de transferencia por inducción
Type of project: Trabajo de Fin de Máster
Co-director of thesis: Miriam Ruiz Ferrández
Entity: Universidad de Málaga **Type of entity:** University
Student: Óscar García-Izquierdo Gango
Obtained qualification: 10/10
Date of reading: 15/07/2020

14 **Project title:** Parametric estimation for a human illnes spread. Application to recent epidemic cases
Type of project: Trabajo de Fin de Máster
Co-director of thesis: José Tomás Lázaro Ochoa; Angel Ramos del Olmo
Entity: Universitat Politècnica de Catalunya **Type of entity:** University
Student: Alicja Barbara Kubik Arroyo
Obtained qualification: 10/10 con Matrícula de Honor
Date of reading: 13/07/2020

15 **Project title:** Construcción de estructuras porosas tridimensionales mediante impresión 3D
Type of project: Trabajo de Fin de Master
Co-director of thesis: Vicente Ismael Agueda Mate
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Sara Lorenzo Vilas
Obtained qualification: Sobresaliente
Date of reading: 02/06/2020

16 **Project title:** Diseño y construcción de reactores mediante impresión 3D
Type of project: Trabajo de Fin de Master
Co-director of thesis: Vicente Ismael Agueda Mate
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Álvaro Berzal Castro
Obtained qualification: Sobresaliente
Date of reading: 02/06/2020

17 **Project title:** Modelización matemática utilizando la herramienta Be-CoDiS para analizar la epidemia de la provincia de Equateur en la República Democrática del Congo en 2018
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Roberto García Gómez
Obtained qualification: 9/10
Date of reading: 25/09/2019

18 **Project title:** Diseño y optimización de mezcladores de fluidos usando herramientas de modelización matemática y su construcción mediante impresión 3D
Type of project: Trabajo de Fin de Master
Co-director of thesis: Vicente Ismael Agueda Mate
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Daniel Sáez Marugán
Obtained qualification: 9/10
Date of reading: 26/07/2019

19 **Project title:** Modelado y Optimización de Problemas en Sanidad vía Computación de Altas Prestaciones
Type of project: Doctoral thesis
Co-director of thesis: Juana Lopez Redondo
Entity: Universidad de Almería **Type of entity:** University
City of entity: Almería, Andalusia, Spain
Student: Miriam Ruiz Ferrández
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 26/02/2019
European doctorate: Yes

20 **Project title:** Modelización y simulación en epidemiología veterinaria. Aplicación a diversos casos
Type of project: Trabajo de Fin de Grado
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: María González Arroyo
Obtained qualification: 9.5/10
Date of reading: 17/09/2018

21 **Project title:** Modelización matemática y simulación en epidemiología
Type of project: Trabajo de Fin de Grado
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Mayra Hernández Alayeto
Obtained qualification: 9/10
Date of reading: 13/07/2018

22 **Project title:** Modelización para la Gestión de Riesgo y Limpieza de manchas de Petróleo en mar abierto
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Carlos Ramírez Lizán
Obtained qualification: 8/10
Date of reading: 05/07/2018

23 **Project title:** Introducción al diseño y optimización aerodinámica de un coche de Fórmula 1
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Yaiza Gonzalez de la Torre
Obtained qualification: 9.5/10
Date of reading: 26/09/2017

24 **Project title:** Optimización de la trayectoria de un buque petrolero accidentado en mar abierto para minimizar la contaminación costera
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Ana Marta Gabaldón Pérez
Obtained qualification: 7.5/10
Date of reading: 18/09/2017

25 **Project title:** Modelización y simulación en epidemiología
Type of project: Trabajo de Fin de Grado
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: María González Arroyo
Obtained qualification: 9/10
Date of reading: 13/07/2017

26 **Project title:** Modelos matemáticos para la introducción, propagación y detección temprana de enfermedades infecciosas en epidemiología veterinaria
Type of project: Doctoral thesis
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Eduardo Fernandez Carrión
Obtained qualification: Cum Laude
Date of reading: 11/07/2017
European doctorate: No

Quality recognition: Yes

27 **Project title:** Mathematical Modeling and Optimization of Bioreactors and Liquid Crystals
Type of project: Doctoral thesis
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Maria Crespo Moya
Obtained qualification: Cum Laude
Date of reading: 30/11/2016
European doctorate: Yes
Quality recognition: Yes

28 **Project title:** Modelización del movimiento de manchas de petróleo en mar abierto. Aplicación al caso del hundimiento del pesquero Oleg Naydenov y de su impacto en las costas de las Islas Canarias y África
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Ubay Casanova Blancas
Obtained qualification: 9/10
Date of reading: 28/09/2016

29 **Project title:** Modelización matemática de la propagación de enfermedades humanas. Aplicación a diversos casos
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Jaime José Magro García
Obtained qualification: 9/10
Date of reading: 19/09/2016

30 **Project title:** Modelización matemática de la propagación de enfermedades humanas. Aplicación al caso de la reciente epidemia del Ébola. Análisis de sensibilidad del Modelo propuesto.
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Marcos González Bernal
Obtained qualification: 9/10
Date of reading: 08/09/2015

31 **Project title:** Modelización matemática de la propagación de enfermedades humanas. Aplicación al caso de la reciente epidemia del Ébola. Estimación de parametros.
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Iréne Serrano García
Obtained qualification: 9/10
Date of reading: 08/09/2015

32 **Project title:** Optimización matemática en procesos industriales. Aplicación al estudio de aparatos de tratamiento de alimentos por campos eléctricos
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel M. Ramos del Olmo

Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Alfonso Bles Fernandez
Obtained qualification: 9/10
Date of reading: 19/09/2014

33 **Project title:** Métodos numéricos para valorar derivados: un compendio de avances recientes
Type of project: Trabajo de Fin de Master
Co-director of thesis: Juan Toro
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Careley Guada Escalona
Obtained qualification: 9/10
Date of reading: 20/09/2013

34 **Project title:** Optimización matemática en procesos industriales. Aplicación al estudio de bioreactores para el tratamiento de aguas contaminadas
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Maria Crespo Moya
Obtained qualification: 9.5/10
Date of reading: 19/09/2013

35 **Project title:** A numerical method to solve a duopolistic differential game in a closed-loop equilibrium.
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Jorge Herrera de la Cruz
Obtained qualification: 9.7/10
Date of reading: 21/02/2012

36 **Project title:** Trading the volatility skew of the options on the S&P index
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Juan Aguirre
Obtained qualification: 8.5/10
Date of reading: 21/02/2012

37 **Project title:** Diseño de un modelo económico y de planes de control para una epidemia de peste porcina clásica
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Eduardo Fernández Carrión
Obtained qualification: 8.5/10
Date of reading: 01/06/2011

38 **Project title:** Introducción a la modelización y simulación matemática - Estudio de la estabilidad de un modelo de evaluación de riesgo para cartera de créditos
Type of project: Trabajo Académicamente Dirigido
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University

Student: Ismael Armero Huertas
Obtained qualification: Sobresaliente
Date of reading: 01/06/2010

39 **Project title:** Introducción a la modelización y simulación matemática - Estudio de la estabilidad de un modelo de evaluación de riesgo para cartera de créditos
Type of project: Trabajo Académicamente Dirigido
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Rebeca Abella Muñoz
Obtained qualification: Sobresaliente
Date of reading: 01/06/2010

40 **Project title:** Modelización matemática de la difusión de una epidemia de peste porcina entre granjas
Type of project: Trabajo de Fin de Master
Co-director of thesis: Angel Ramos del Olmo
Entity: Universidad Complutense de Madrid **Type of entity:** University
Student: Diego de Pereda
Obtained qualification: 9.5/10
Date of reading: 22/09/2010
Quality recognition: Yes **Date of award:** 12/11/2008

Participation in innovative teaching projects

1 **Project title:** Escenarios Multimedia en Formación de Futuros Profesores Universitarios de Matemáticas (ESCEMMAT-Univ) (2Fase)
Type of participation: Team member
Time of working relationship: For an undetermined time
Name of the main researcher: INES MARÍA GÓMEZ CHACÓN
Number of participants: 17
Amount awarded: 750 €
Funding entity: Vicerrectorado de Calidad de la Universidad Complutense de Madrid
Start-End date: 01/10/2019 - 30/09/2020 **Duration:** 1 year

2 **Project title:** Escenarios Multimedia en Formación de Futuros Profesores Universitarios de Matemáticas (ESCEMMAT-Univ)
Type of participation: Team member
Time of working relationship: For an undetermined time
Name of the main researcher: INES MARÍA GÓMEZ CHACÓN
Number of participants: 17
Amount awarded: 750 €
Funding entity: Vicerrectorado de Calidad de la Universidad Complutense de Madrid
Start-End date: 01/10/2018 - 30/09/2019 **Duration:** 1 year

Participation in conferences with talks focused on teacher training

1 **Name of the event:** Las matemáticas están por todas partes. Disfrutemos de su enseñanza
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Aims of the event: Presentar algunos ejemplos de la incorporación de las matemáticas en la epidemiologia.
City of event: Madrid, Community of Madrid, Spain
Date of presentation: 18/09/2019
Organising entity: Colegio profesional de Matemáticos
City organizing entity: Spain
Modelos matemáticos actuales para la simulación de epidemias con datos reales.

2 **Name of the event:** Matemáticas ¿Para Qué?
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Aims of the event: Presentar algunos ejemplos de la incorporación de las matemáticas en la epidemiologia.
City of event: Madrid, Community of Madrid, Spain
Date of presentation: 03/07/2017
Organising entity: Fundación General de la Universidad Complutense
Modelización de epidemias en animales de granja.

3 **Name of the event:** Tendencias actuales de la matemática interdisciplinar
Type of event: Conference
Type of participation: Participatory - invited/keynote talk
Aims of the event: Presentar algunos ejemplos de la incorporación de las matemáticas en la industria y como introducir estos ejemplos en asignaturas teóricas.
City of event: SAN LORENZO DEL ESCORIAL, Community of Madrid, Spain
Date of presentation: 21/06/2008
Organising entity: Fundación General de la Universidad Complutense
Mathematical Modeling and Optimization. Applications to industrial design problems..

4 **Name of the event:** Enseñanza a través del uso de programas profesionales. Ilustración con Comsol Multiphysics
Type of event: Seminar
Date of presentation: 18/05/2019
Organising entity: Cátedra Miguel de Guzmán

Other activities/achievements not included above

1 **Description of the activity:** Diploma de reconocimiento a la excelencia Docentia UCM
Organising entity: Universidad Complutense de Madrid **Type of entity:** University
End date: 16/06/2022

2 **Description of the activity:** 3 Quinquenios reconocidos - Periodos: 2007-2011, 2011-2016 y 2017-2021
Organising entity: Universidad Complutense de Madrid
End date: 31/12/2021

3 **Description of the activity:** Miembro del varios tribunales encargado de evaluar Trabajos de Fin de Máster y Trabajos de Fin de Grados
Organising entity: Universidad Complutense de Madrid **Type of entity:** University
End date: 14/09/2019

4 **Description of the activity:** Miembro de la Comisión de Evaluación de Practicas Curriculares
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

5 **Description of the activity:** Miembro de la Comisión de Coordinación del Máster en Tratamiento Estadístico-Computacional
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

6 **Description of the activity:** Miembro de la Comisión de Doctorado en Ingeniería Matemática, Estadística e Investigación Operativa (IMEIO)
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

7 **Description of the activity:** Varias evaluaciones docentes (DOCENTIA): Excelente y muy positiva
Organising entity: Vicerrectorado de Calidad de la Universidad Complutense de Madrid

Scientific and technological experience

Research and development groups/teams

1 **Name of the group:** Modelos Matemáticos en Ciencia y Tecnología: Desarrollo, Análisis, Simulación Numérica y Control.
Aims of the group: Grupo de Investigación
Name of principal investigator: Ángel Manuel Ramos del Olmo
Standardised code: MOMAT **Type of collaboration:** Co-authorship of projects and their development
Affiliation entity: Universidad Complutense de Madrid **Type of entity:** University
Start date: 13/07/2007

2 **Name of the group:** Instituto Matemático Interdisciplinar
Aims of the group: Organización de eventos científicos - miembro del programa "Modeling, Analysis, Control and Simulation in Science and Engineering"
Name of principal investigator: Angel Ramos del Olmo
Standardised code: IMI **Type of collaboration:** Co-authorship of projects and their development
Affiliation entity: Universidad Complutense de Madrid **Type of entity:** University
Start date: 07/02/2007

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** Sustainable High-Voltage Batteries Based on Hybrid Cathodes Enabling Dual-Ion Energy Storage.
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel M. Ramos del Olmo
Nº of researchers: 20
Funding entity or bodies:
Unión Europea

Name of the programme: M-ERA.NET
Code according to the funding entity: PCI2024-153478
Start-End date: 01/04/2024 - 31/03/2027
Dedication regime: Full time
Applicant's contribution: Desarrollos de varios modelos matemáticos para el estudio del movimiento de jabalíes y la propagación de peste porcina africana en granjas.

2 **Name of the project:** Modelización, simulación numérica y optimización para varios problemas de interés general
Type of project: Research and development, including transfer
Degree of contribution: Scientific coordinator
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Benjamin Ivorra; Angel Manuel Ramos del Olmo
Nº of researchers: 4
Funding entity or bodies:
Ministerio de Economía y Competitividad **Type of entity:** State agency
City funding entity: Spain

Type of participation: Principal investigator
Name of the programme: Plan Nacional de I+D+i
Code according to the funding entity: PID2019-106337GB-I00
Start-End date: 01/01/2020 - 30/12/2023 **Duration:** 4 years
Total amount: 30.700 €
Dedication regime: Full time
Applicant's contribution: Estudio y resolución de varios problemas en sanidad animal y limpieza de agua.

3 **Name of the project:** VACDIVA - A safe DIVA vaccine for African Swine Fever control and eradication
Geographical area: European Union
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): José Manuel Sánchez-Vizcaíno
Nº of researchers: 20
Funding entity or bodies:

Unión Europea

Name of the programme: H2020-SFS-2019-1
Code according to the funding entity: 862874
Start-End date: 01/10/2019 - 30/09/2023
Total amount: 10.296.522 €
Dedication regime: Full time
Applicant's contribution: Desarrollos de varios modelos matemáticos para el estudio del movimiento de jabalíes y la propagación de peste porcina africana en granjas.

4 **Name of the project:** Optimization methods applied to support vector machine classification
Type of project: Research and development, including transfer
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Universidad de los Andes
Type of entity: University
City of entity: Santiago de Chile, Chile
Name principal investigator (PI, Co-PI....): MIGUEL ANGEL CARRASCO BRIONES
Nº of researchers: 5
Funding entity or bodies:
Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE)
Type of entity: State agency
City funding entity: Chile

Type of participation: Team member
Name of the programme: FODECYT Regular 2020
Code according to the funding entity: 1201403
Start-End date: 01/03/2020 - 01/02/2023
Duration: 3 years
Dedication regime: Part time
Applicant's contribution: Desarrollo de métodos de optimización global

5 **Name of the project:** Modelización matemática en varios temas de interés para la sociedad
Type of project: Research and development, including transfer
Degree of contribution: Scientific coordinator
Entity where project took place: Universidad Complutense de Madrid
Type of entity: University
Name principal investigator (PI, Co-PI....): Benjamin Ivorra; Angel Manuel Ramos del Olmo
Nº of researchers: 9
Funding entity or bodies:
Ministerio de Economía y Competitividad
Type of entity: State agency
City funding entity: Spain

Type of participation: Principal investigator
Name of the programme: Plan Nacional de I+D+i
Code according to the funding entity: MTM2015-64865-P
Start-End date: 01/01/2016 - 30/12/2019
Duration: 4 years
Total amount: 32.000 €
Dedication regime: Full time
Applicant's contribution: Estudio y resolución de varios problemas en sanidad animal y limpieza de agua.

6 **Name of the project:** Modelado y Optimización de Problemas de Industria Alimentaria basados en Computación de Altas Prestaciones
Type of project: Research and development, including transfer

Degree of contribution: Researcher
Entity where project took place: Universidad de Almería **Type of entity:** University
Name principal investigator (PI, Co-PI....): Pilar Martinez Ortigosa
Nº of researchers: 7
Funding entity or bodies:
Junta de Andalucía **Type of entity:** Comunidad autónoma
City funding entity: Sevilla, Andalusia, Spain

Type of participation: Team member
Name of the programme: Proyectos de Promoción General del Conocimiento y Proyectos Motrices e Innovación
Code according to the funding entity: TIC-301
Start-End date: 01/01/2012 - 31/12/2018 **Duration:** 3 years
Total amount: 127.600 €
Dedication regime: Full time
Applicant's contribution: Estudio y resolución de varios problemas de optimización en sanidad animal y tratamiento de alimentos.

7 **Name of the project:** Matemáticas para el avance interdisciplinar en altas presiones, sanidad animal y otros temas de interés científico y tecnológico
Type of project: Research and development, including transfer
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel Manuel Ramos del Olmo
Nº of researchers: 7
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Ministerio
City funding entity: Madrid, Community of Madrid, Spain

Type of participation: Team member
Name of the programme: Plan Nacional de I+D+i 2008-2011 (BOE 21-12-2010)
Code according to the funding entity: MTM2011-22658
Start-End date: 01/01/2012 - 30/06/2016 **Duration:** 4 years - 6 months
Total amount: 34.969 €
Dedication regime: Full time
Applicant's contribution: Estudio y resolución de varios problemas de optimización en sanidad animal y tratamiento de alimentos.

8 **Name of the project:** Optimization algorithms for mathematical programing problems and engineering applications
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Universidad de los Andes **Type of entity:** University
City of entity: Santiago de Chile, Chile
Name principal investigator (PI, Co-PI....): MIGUEL ANGEL CARRASCO BRIONES
Nº of researchers: 5
Funding entity or bodies:
Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency

City funding entity: Chile

Type of participation: Others
Name of the programme: FODECYT Regular 2013
Code according to the funding entity: 1130905
Start-End date: 01/04/2013 - 31/03/2016 **Duration:** 3 years
Dedication regime: Part time
Applicant's contribution: Desarrollo de métodos de optimización para minimizar deformaciones en estructuras.

9 **Name of the project:** Química a alta presión (QUIMAPRES)
Type of project: Research and development, including transfer **Geographical area:** Regional
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Valentín García Baonza
Nº of researchers: 12
Funding entity or bodies:
Comunidad de Madrid **Type of entity:** comunidad autónoma
City funding entity: Madrid, Community of Madrid, Spain

Type of participation: Team member
Name of the programme: madridmasd
Code according to the funding entity: S2009/PPQ-1551
Start-End date: 01/01/2010 - 31/12/2013 **Duration:** 4 years
Total amount: 847.550 €
Dedication regime: Full time
Applicant's contribution: Modelización y optimización de aparatos usando altas presiones.

10 **Name of the project:** Numerical study of prox type algorithms and structural engineering applications
Type of project: Research and development, including transfer
Degree of contribution: Researcher
Entity where project took place: Universidad de los Andes **Type of entity:** University
City of entity: Santiago de Chile, Chile
Name principal investigator (PI, Co-PI....): MIGUEL ANGEL CARRASCO BRIONES
Nº of researchers: 4
Funding entity or bodies:
Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile

Type of participation: Team member
Name of the programme: INICIACIÓN EN INVESTIGACIÓN
Code according to the funding entity: 11090328
Start-End date: 01/11/2009 - 30/09/2012 **Duration:** 3 years
Dedication regime: Full time
Applicant's contribution: Desarrollo de un modelo para calcular la deformación de armaduras.

11 **Name of the project:** Modelos matemáticos en tecnología agroalimentaria y sanidad animal
Type of project: Research and development, including transfer **Geographical area:** Universidad

Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel Manuel Ramos del Olmo
Nº of researchers: 7
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Ministerio
City funding entity: Madrid, Community of Madrid, Spain

Type of participation: Team member
Name of the programme: Plan Nacional de I+D+i 2008-2011
Code according to the funding entity: MTM2008-04621/MTM
Start-End date: 01/01/2009 - 31/12/2011 **Duration:** 3 years
Total amount: 28.900 €
Dedication regime: Full time
Applicant's contribution: Desarrollo de un modelo estocástico para el estudio de la difusión de la peste porcina en la provincia de Segovia.

12 **Name of the project:** Un modelo matemático híbrido para la difusión de enfermedades animales y su impacto económico
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Coordinator of total project, network or consortium
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Benjamin Ivorra
Nº of researchers: 7
Funding entity or bodies:
Universidad de Cantabria **Type of entity:** University
City funding entity: Santander, Cantabria, Spain

Type of participation: Principal investigator
Name of the programme: Proyecto 'Ingenio Mathematica (i-MATH)'
Code according to the funding entity: CONS-C6-0356
Start-End date: 02/10/2010 - 01/10/2011 **Duration:** 1 year
Total amount: 3.250 €
Dedication regime: Full time
Applicant's contribution: Desarrollo de un modelo epidemiológico y económico para estudiar el impacto de una enfermedad de peste porcina en España. Coordinación de los miembros del proyecto. Dirección de un trabajo de Máster relacionado con este tema.

13 **Name of the project:** Problemas directos e inversos en Biología e Ingeniería
Type of project: Research and development, including transfer **Geographical area:** Non EU International
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel Manuel Ramos del Olmo
Funding entity or bodies:
Dirección General de Educación Superior Universitaria (México) **Type of entity:** Public Research Body
City funding entity: Mexico

Type of participation: Team member

Name of the programme: PROGRAMA DE MEJORAMIENTO DEL PROFESORADO APOYO PARA CUERPOS ACADÉMICOS
Code according to the funding entity: PROMEP/103.5/09/1265
Start-End date: 01/01/2009 - 31/07/2010 **Duration:** 1 year - 7 months
Total amount: 60.000 €
Dedication regime: Full time
Applicant's contribution: Desarrollo de un método de optimización para los problemas propuestos.

14 **Name of the project:** Estudio matemático de problemas planteados en ingeniería de alimentos
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel Manuel Ramos del Olmo
Nº of researchers: 6
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain

Type of participation: Team member
Name of the programme: Plan Nacional de I+D+i 2004--2007 (BOE 09-12-2006)
Code according to the funding entity: MTM2007-64540
Start-End date: 01/10/2007 - 30/09/2008 **Duration:** 1 year
Total amount: 9.680 €
Dedication regime: Full time
Applicant's contribution: Optimización de procesos usando altas presiones en ingeniería de alimentos.

15 **Name of the project:** Segunda edición de la modelling week del máster en ingeniería matemática de la UCM
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): ANGEL MANUEL RAMOS DEL OLMO
Nº of researchers: 5
Funding entity or bodies:
Universidad de Cantabria **Type of entity:** University
City funding entity: Santander, Cantabria, Spain

Type of participation: Team member
Name of the programme: Proyecto 'Ingenio Mathematica (i-MATH)'
Code according to the funding entity: C3-0143
Start-End date: 26/02/2008 - 24/09/2008
Total amount: 6.000 €
Dedication regime: Full time
Applicant's contribution: Preparación de proyectos con participación de empresas para varios grupos de alumnos del master de ingeniería matemática - UCM.

16 **Name of the project:** Conception, optimisation et prototypage d'ouvrage de lutte contre l'érosion en domaine littoral.
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Université de Montpellier 2
Name principal investigator (PI, Co-PI....): Bijan Mohammadi
Funding entity or bodies:
Agence Nationale de la Recherche (Francia) **Type of entity:** State agency
City funding entity: France

Type of participation: Others
Name of the programme: Projet ANR Blanc
Code according to the funding entity: NT05 – 2-42253
Start-End date: 01/09/2005 - 01/09/2008 **Duration:** 3 years
Total amount: 300.000 €
Applicant's contribution: Desarrollo de un programa de optimización usado para optimizar estructuras en alta mar.

17 **Name of the project:** Modelización matemática de procesos de congelación a altas presiones en la crioconcetración de zumos y la producción de helados
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): ANGEL MANUEL RAMOS DEL OLMO
Nº of researchers: 5
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain

Type of participation: Team member
Name of the programme: Plan Nacional de I+D+i 2004--2007
Code according to the funding entity: AGL2006-12112-C03-02/ALI
Start-End date: 01/10/2006 - 30/09/2007 **Duration:** 1 year
Total amount: 6.050 €
Dedication regime: Full time
Applicant's contribution: Desarrollo de un modelo para un dispositivo de tratamiento de alimentos usando alta presiones-temperaturas.

18 **Name of the project:** Synthèse de guide optique de type WDM au moyen de deux méthodes d'optimisation différentes: génétique et semi-déterministe.
Type of project: Research and development, including transfer **Geographical area:** National
Degree of contribution: Researcher
Entity where project took place: Université de Montpellier 2 **Type of entity:** University
City of entity: Montpellier, Languedoc-Roussillon, France
Name principal investigator (PI, Co-PI....): Yves Moreau
Nº of researchers: 4
Funding entity or bodies:
Type of entity: State agency

Centre National de la Recherche Scientifique
(Francia)
City funding entity: France

Type of participation: Others
Name of the programme: Programme inter-départements Math-STIC
Code according to the funding entity: 80/0237
Start-End date: 01/01/2004 - 01/01/2005 **Duration:** 1 year - 9 months
Total amount: 10.000 €
Dedication regime: Full time
Applicant's contribution: Uso de técnicas de optimización global para diseñar fibras ópticas.

R&D non-competitive contracts, agreements or projects with public or private entities

1 **Name of the project:** Diseño y desarrollo de un proyecto de investigación destinado al desarrollo de herramientas in vitro e in vivo para la evaluación de vacunas clostridiales
Type of project: Industrial research **Entity where project took place:** Universidad Complutense de Madrid

Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): LUCAS DOMÍNGUEZ RODRÍGUEZ
Nº of researchers: 6
Funding entity or bodies:
Laboratorios SYVA S.A.

Name of the programme: Contrato acogido al artículo 83
Code according to the funding entity: 13-2018-A-2021
Start date: 20/02/2021 **Duration:** 6 months
Total amount: 4.500 €

2 **Name of the project:** Estudio del análisis de riesgo de derrames de petróleo
Type of project: Industrial research **Entity where project took place:** Universidad Complutense de Madrid

Degree of contribution: Researcher
Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel M. Ramos del Olmo
Nº of researchers: 3
Funding entity or bodies:
CSIPA, S.A. DE C.V. **Type of entity:** Business
City funding entity: Mexico

Name of the programme: Contrato acogido al artículo 83
Code according to the funding entity: 566-2019
Start date: 01/12/2019 **Duration:** 2 years
Total amount: 30.000 €

3 **Name of the project:** Predicción del recorrido de derrames de petróleo
Type of project: Industrial research **Entity where project took place:** Universidad Complutense de Madrid

Degree of contribution: Researcher

Entity where project took place: Universidad Complutense de Madrid **Type of entity:** University
Name principal investigator (PI, Co-PI....): Angel M. Ramos del Olmo
Nº of researchers: 3
Funding entity or bodies:
Holding Nautilus de seguridad industrial **Type of entity:** Business
City funding entity: Mexico

Name of the programme: Contrato acogido al artículo 83
Code according to the funding entity: 422-2017
Start date: 08/01/2018 **Duration:** 1 year
Total amount: 10.000 €

Results

Industrial and intellectual property

Title registered industrial property: Be-FAST
Inventors/authors/obtainers: Eduardo Fernandez Carrion; Benjamin Ivorra; José Manuel Sanchez-Vizcaino Rodriguez; Beatriz Martinez Lopez; Angel M. Ramos del Olmo
Entity holder of rights: Universidad Complutense de Madrid
Nº of application: M-2614-15
Country of inscription: Spain, Community of Madrid
Date of register: 17/04/2015
Conferral date: 12/01/2016

Scientific and technological activities

Scientific production

1 **H index:** 17
Date of application: 01/10/2024
Source of H-Index: WOS

2 **H index:** 25
Date of application: 01/10/2024
Source of H-Index: GOOGLE SCHOLAR

3 **H index:** 18
Date of application: 01/10/2024
Source of H-Index: SCOPUS

Publications, scientific and technical documents

1 M.R. Ferrández; B. Ivorra; J.L. Redondo; Á.M. Ramos; P.M. Ortigosa. A multi-objective approach to identify parameters of compartmental epidemiological models. Application to Ebola Virus Disease epidemics. Communications in Nonlinear Science and Numerical Simulation. 120, pp. 107165. Elsevier, 2023. Available on-line at: <https://doi.org/10.1016/j.cnsns.2023.107165>.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Applied Mathematics
Impact index in year of publication: 3.9
Journal in the top 25%: Yes
Position of publication: 12
No. of journals in the cat.: 267

2 M. Martínez Avilés; Bosch; B. Ivorra; Á.M. Ramos; S. Ito; J.Á. Barasona. Epidemiological impacts of attenuated African swine fever virus circulating in wild boar populations. Research in Veterinary Science. 162, pp. 104964. Elsevier, 2023. Available on-line at: <https://doi.org/10.1016/j.cnsns.2023.107165>.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: VETERINARY SCIENCES
Impact index in year of publication: 2.4
Journal in the top 25%: Yes
Position of publication: 29
No. of journals in the cat.: 143

3 Rama, Seck; Ngom, Diène; Ivorra, Benjamin; Ramos, Angel. An optimal control model to design strategies for reducing the spread of the Ebola virus disease. Mathematical Biosciences and Engineering. 19 - 2, pp. 1746 - 1774. AMER INST MATHEMATICAL SCIENCES-AIMS, 2022. ISSN 1072-6691

DOI: 10.3934/mbe.2022082

Type of production: Scientific paper
Format: Journal
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Corresponding author: No
Impact source: ISI
Category: Science Edition - MATHEMATICAL & COMPUTATIONAL BIOLOGY
Impact index in year of publication: 2.6
Position of publication: 24
No. of journals in the cat.: 55

4 F. Ferrada; A. Marzo; M.R. Ferrández; E.R. Reina; B. Ivorra; J. Correa-Puerta; V. del Campo. Optimization of N-PERT Solar Cell under Atacama Desert Solar Spectrum. Nanomaterials. 12 - 20, pp. 3554. MDPI, 2022. Available on-line at: <https://doi.org/10.3390/nano12203554>.

Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: PHYSICS, APPLIED
Impact index in year of publication: 5.3
Journal in the top 25%: Yes
Position of publication: 38
No. of journals in the cat.: 159

5 B. Ivorra; S. Gomez; J. Carrera; A.M. Ramos. A compositional Eulerian approach for modeling oil spills in the sea. Ocean Engineering. 242 - 110096, pp. 1 - 12. Springer, 2021. ISSN 0029-8018

DOI: 10.1016/j.oceaneng.2021.110096

Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - ENGINEERING, MARINE

Impact index in year of publication: 4.372
Position of publication: 3
Journal in the top 25%: Yes
No. of journals in the cat.: 16

6 Angel Ramos; Miram Ruíz Ferrández; Maria Vela-Pérez; Alicja B. Kubik; Benjamin Ivorra. A simple but complex enough theta-SIR type model to be used with COVID-19 real data. Application to the case of Italy. Physica D: Nonlinear Phenomena. 421 - 132839, pp. 1 - 22. Elsevier, 2021. ISSN 0167-2789
DOI: 10.1016/j.physd.2020.132839
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Science Edition - MATHEMATICS, APPLIED
Impact index in year of publication: 3.751
Journal in the top 25%: Yes
Position of publication: 16
No. of journals in the cat.: 267
Source of citations: WOS
Citations: 7
Source of citations: SCOPUS
Citations: 12

7 Angel Ramos; Maria Vela-Pérez; Miram Ruíz Ferrández; Alicja B. Kubik; Benjamin Ivorra. Modeling the impact of SARS-CoV-2 variants and vaccines on the spread of COVID-19. Communications in Nonlinear Science and Numerical Simulation. 102 - 105937, pp. 1 - 27. Elsevier, 2021. ISSN 1007-5704
DOI: 10.1016/j.cnsns.2021.105937
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5
Corresponding author: No
Impact source: ISI
Category: Science Edition - MATHEMATICS, APPLIED
Impact index in year of publication: 4.186
Journal in the top 25%: Yes
Position of publication: 9
No. of journals in the cat.: 267
Source of citations: WOS
Citations: 5

8 Ferrandez, M. R.; Redondo, J. L.; Ivorra, B.; Ramos, A. M.; Ortigosa, P. M.; Paechter, B.. Improving the performance of a preference-based multi-objective algorithm to optimize food treatment processes. Engineering Optimization. 52 - 5, pp. 896 - 913. Taylor & Francis, 2020. ISSN 0305-215X
DOI: 10.1080/0305215X.2019.1618289
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5
Impact source: ISI
Category: Science Edition - ENGINEERING, MULTIDISCIPLINARY
Impact index in year of publication: 3.230
Position of publication: 26
No. of journals in the cat.: 90

9 Ivorra, Benjamin; Ngom, Diène; Ramos, Angel. Stability and sensitivity analysis of Be-CoDiS, an epidemiological model to predict the spread of human diseases between countries. Validation with data from the 2014-16 West African Ebola Virus Disease epidemic. Electronic Journal of Differential Equations. 2020, pp. 1 - 29. Texas State University - San Marcos, 2020. Available on-line at: <https://ejde.math.txstate.edu/Volumes/2020/62/abstr.html>. ISSN 1072-6691
Type of production: Scientific paper
Format: Journal

Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Impact source: ISI
Category: Science Edition - MATHEMATICS
Impact index in year of publication: 1.282
Position of publication: 106
No. of journals in the cat.: 330
Source of citations: SCOPUS
Citations: 2

10 Benjamin Ivorra; Miram Ruíz Ferrández; Maria Vela-Pérez; Angel Ramos. Mathematical modeling of the spread of the coronavirus disease 2019 (COVID-19) taking into account the undetected infections. The case of China. Communications in Nonlinear Science and Numerical Simulation. 88 - 105303, pp. 1 - 21. Elsevier, 2020. ISSN 1007-5704
DOI: 10.1016/j.cnsns.2020.105303
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - MATHEMATICS, APPLIED
Impact index in year of publication: 4.260
Journal in the top 25%: Yes
Position of publication: 5
No. of journals in the cat.: 265
Source of citations: WOS
Citations: 164
Source of citations: SCOPUS
Citations: 188
Relevant publication: No

11 Herrera De La Cruz J.; Ivorra B.; Ramos Á.. An Algorithm for Solving a Class of Multiplayer Feedback-Nash Differential Games. Mathematical Problems in Engineering. 2019 - 1417275, pp. 1 - 14. Hindawi, 2019. ISSN 1024123X
DOI: 10.1155/2019/1417275
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - MATHEMATICS, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 1.009
Position of publication: 67
No. of journals in the cat.: 91
Source of citations: SCOPUS
Citations: 1

12 Ferrandez, M. R.; Puertas-Martin, S.; Redondo, J. L.; Ivorra, B.; Ramos, A. M.; Ortigosa, P. M.. High-performance computing for the optimization of high-pressure thermal treatments in food industry. Journal of Supercomputing. 75 - 3, pp. 1187 - 1202. Kluwer Academic Publishers, 2019. ISSN 0920-8542
DOI: 10.1007/s11227-018-2351-4
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 6
Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, THEORY & METHODS

Impact index in year of publication: 2.469
Position of publication: 31
No. of journals in the cat.: 108
Source of citations: WOS
Citations: 4

13 Fernandez, Miriam R.; Redondo, Juana L.; Ivorra, Benjamin; Ramos, Angel M.; Ortigosa, Pilar M.. Preference-based multi-objectivization applied to decision support for High-Pressure Thermal processes in food treatment. Applied Soft Computing. 79, pp. 326 - 340. Elsevier Science BV, 2019. ISSN 1568-4946
DOI: 10.1016/j.asoc.2019.03.050
Type of production: Scientific paper
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5
Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 5.472
Journal in the top 25%: Yes
Position of publication: 9
No. of journals in the cat.: 109
Source of citations: WOS
Citations: 7

14 Crespo, Maria; Ivorra, Benjamin; Manuel Ramos, Angel; Rapaport, Alain. Shape optimization of spatial chemostat models. Electronic Journal of Differential Equations. 84, pp. 1 - 26. Texas State University - San Marcos, 2019. Available on-line at: <https://ejde.math.txstate.edu/Volumes/2019/84/crespo.pdf>. ISSN 1072-6691
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Impact source: ISI
Category: Science Edition - MATHEMATICS
Impact index in year of publication: 0.820
Position of publication: 157
No. of journals in the cat.: 325
Source of citations: SCOPUS
Citations: 2

15 Fernandez-Carrion, Eduardo; Ivorra, Benjamin; Manuel Ramos, Angel; Martinez-Lopez, Beatriz; Aguilar-Vega, Cecilia; Manuel Sanchez-Vizcaino, Jose. An advection-deposition-survival model to assess the risk of introduction of vector-borne diseases through the wind: Application to bluetongue outbreaks in Spain. PLOS One. 13 - 3, pp. 1 - 16. Public Library of Science, 2018. ISSN 1932-6203
DOI: 10.1371/journal.pone.0194573
PMID: 29566088
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 6
Impact source: SCOPUS
Category: Agricultural and Biological Sciences (miscellaneous)
Impact index in year of publication: 1.1
Journal in the top 25%: Yes
Position of publication: 34
No. of journals in the cat.: 250
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 2.776
Position of publication: 24
No. of journals in the cat.: 69

Source of citations: WOS **Citations:** 5

16 Benjamin Ivorra. Application of the Laminar Navier–Stokes Equations for Solving 2D and 3D Pathfinding Problems with Static and Dynamic Spatial Constraints: Implementation and Validation in Comsol Multiphysics. Journal of Scientific Computing. 74 - 2, pp. 1163 - 1187. Springer, 2018. ISSN 0885-7474
DOI: 10.1007/s10915-017-0489-5
Type of production: Scientific paper **Format:** Journal
Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 1 **Corresponding author:** Yes
Impact source: ISI **Category:** Mathematics, Applied
Impact index in year of publication: 2.370 **Journal in the top 25%:** Yes
Position of publication: 26 **No. of journals in the cat.:** 254
Source of citations: WOS **Citations:** 4
Source of citations: SCOPUS **Citations:** 5

17 Ivorra, Benjamin; Ferrandez, Miriam R.; Crespo, Maria; Redondo, Juana L.; Ortigosa, Pilar M.; Santiago, Juan G.; Ramos, Angel M.. Modelling and optimization applied to the design of fast hydrodynamic focusing microfluidic mixer for protein folding. Journal of Mathematics In Industry. 8 - 1, pp. 1 - 17. Springer Nature, 2018. ISSN 2190-5983
DOI: 10.1186/s13362-018-0046-3
Type of production: Scientific paper
Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 7 **Corresponding author:** Yes
Impact source: SCOPUS **Category:** Applied Mathematics
Impact index in year of publication: 0.212
Position of publication: 1.158 **No. of journals in the cat.:** 1.405
Impact source: ISI **Category:** Science Edition - MATHEMATICS, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 0.49 (JCI)
Position of publication: 87 **No. of journals in the cat.:** 125
Source of citations: WOS **Citations:** 5

18 M. Crespo; B. Ivorra; A.M. Ramos del Olmo. Asymptotic stability of a coupled advection-diffusion-reaction system arising in bioreactor processes. Electronic Journal of Differential Equations. 194, pp. 1 - 26. Texas State University, 2017. Available on-line at: <https://ejde.math.txstate.edu/>. ISSN 1072-6691
Type of production: Scientific paper **Format:** Journal
Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Impact source: ISI **Category:** Mathematics
Impact index in year of publication: 0.944 **Journal in the top 25%:** No
Position of publication: 83 **No. of journals in the cat.:** 310
Source of citations: SCOPUS **Citations:** 2
Relevant results: * Nota: Autores en orden alfabético

19 S. Gomez; B. Ivorra; A.M. Ramos. Designing optimal trajectories for a skimmer ship to clean, recover and prevent the oil spilled on the sea from reaching the coast. Applied Mathematics and Nonlinear Sciences. 3, pp. 553 - 570. Sciendo, 2017. ISSN 2444-8656

DOI: https://doi.org/10.2478/AMNS.2018.2.00043

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Corresponding author: Yes
Impact source: MathSciNet
Category: Indice MathSciNet MCQ 2018: 0.13 - El valor medio 'MCQ 2018' de todas las revistas indexadas en es 0.42.
Impact index in year of publication: 0.13

20 M. Crespo; B. Ivorra; A. M. Ramos del Olmo; A. Rapaport. Modeling and optimization of activated sludge bioreactors for wastewater treatment taking into account spatial inhomogeneities. Journal of Process Control. 54, pp. 118 - 128. ELSEVIER, 2017. ISSN 0959-1524

DOI: 10.1016/j.jprocont.2017.03.009

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Impact source: SCOPUS
Category: Modelling and Simulation
Impact index in year of publication: 1.210
Journal in the top 25%: Yes
Position of publication: 26
No. of journals in the cat.: 210
Impact source: ISI
Category: Automation & Control Systems
Impact index in year of publication: 2.787
Journal in the top 25%: No
Position of publication: 18
No. of journals in the cat.: 61
Source of citations: WOS
Citations: 6
Relevant results: * Nota: Autores en orden alfabético

21 E. Fernández-Carrión; M. Martínez-Avilés; B. Ivorra; B. Martínez-López; A.M. Ramos del Olmo; J.M. Sánchez-Vizcaíno. Motion-based video monitoring for early detection of livestock diseases: The case of African swine fever. PLOS One. 12 - 9, pp. 1 - 13. PUBLIC LIBRARY SCIENCE, 2017. ISSN 1932-6203

DOI: 10.1371/JOURNAL.PONE.0183793

Type of production: Scientific paper
Format: Journal
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 6
Impact source: ISI
Category: Multidisciplinary Sciences
Impact index in year of publication: 2.766
Journal in the top 25%: Yes
Position of publication: 15
No. of journals in the cat.: 64
Source of citations: WOS
Citations: 18
Source of citations: SCOPUS
Citations: 19

22 B. Ivorra; S. Gomez; R. Glowinski; A.M. Ramos. Nonlinear Advection–Diffusion–Reaction Phenomena Involved in the Evolution and Pumping of Oil in Open Sea: Modeling, Numerical Simulation and Validation Considering the Prestige and Oleg Naydenov Oil Spill Cases. Journal of Scientific Computing. 70 - 3, pp. 1078 - 1104. Springer, 2017. ISSN 0885-7474

DOI: 10.1007/s10915-016-0274-x

Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Mathematics, Applied
Impact index in year of publication: 1.814
Journal in the top 25%: Yes
Position of publication: 39
No. of journals in the cat.: 252
Source of citations: WOS
Citations: 5

23 Ivorra, Benjamin; Lopez Redondo, Juana; Ramos del Olmo, Angel M.; Santiago, Juan G.. Design sensitivity and mixing uniformity of a micro-fluidic mixer. Physics of Fluids. 28 - 012005, pp. 1 - 17. AMER INST PHYSICS, 2016. ISSN 1070-6631
DOI: 10.1063/1.4939006
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Corresponding author: Yes
Impact source: SCOPUS
Category: Condensed Matter Physics
Impact index in year of publication: 1.29
Journal in the top 25%: Yes
Position of publication: 45
No. of journals in the cat.: 380

Impact source: ISI
Category: Mechanics
Impact index in year of publication: 2.232
Journal in the top 25%: No
Position of publication: 37
No. of journals in the cat.: 133
Source of citations: WOS
Citations: 7

24 Crespo, M.; Ivorra, B.; Ramos del Olmo, A. M.. Existence and uniqueness of solution of a continuous flow bioreactor model with two species. Revista de la Real Academia de Ciencias Exactas Físicas y Naturales Serie A-Matemáticas. 110 - 2, pp. 357 - 377. Springer, 2016. ISSN 1578-7303
DOI: 10.1007/s13398-015-0237-3
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Impact source: ISI
Category: Mathematics
Impact index in year of publication: 0.690
Journal in the top 25%: No
Position of publication: 140
No. of journals in the cat.: 311
Source of citations: WOS
Citations: 5
Relevant results: * Nota: Autores en orden alfabético

25 Fernandez-Carrion, E.; Ivorra, B.; Martinez-Lopez, B.; Ramos del Olmo, A. M.; Sanchez-Vizcaino, J. M.. Implementation and validation of an economic module in the Be-FAST model to predict costs generated by livestock disease epidemics: Application to classical swine fever epidemics in Spain. Preventive Veterinary Medicine. 126, pp. 66 - 73. Elsevier Science, 2016. ISSN 0167-5877
DOI: 10.1016/j.prevetmed.2016.01.015
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5

Impact source: ISI
Impact index in year of publication: 1.987
Position of publication: 14
Category: Veterinary Science
Journal in the top 25%: Yes
No. of journals in the cat.: 136

Source of citations: WOS
Citations: 5

Source of citations: SCOPUS
Citations: 6

Relevant results: Nota: Preventive Veterinary Medicine es una revista que publica, entre otras cosas, artículos sobre modelos matemáticos en epidemiologia. Por ejemplo: C.M. Evans, G.F. Medley, S.J. Creasey, L.E. Green, A stochastic mathematical model of the within-herd transmission dynamics of porcine reproductive and respiratory syndrome virus (PRRSV): Fade-out and persistence, Preventive Veterinary Medicine, 2010, https://doi.org/10.1016/j.prevetmed.2009.11.001.

26 Benjamin Ivorra; Bijan Mohammadi; Angel Manuel Ramos Del Olmo. A Multi-Layer Line Search Method to Improve the Initialization of Optimization Algorithms. European Journal of Operational Research. 247 - 3, pp. 711 - 720. Elsevier, 2015. ISSN 0377-2217
DOI: 10.1016/j.ejor.2015.06.044
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Corresponding author: Yes
Impact source: ISI
Impact index in year of publication: 2.358
Position of publication: 10
Category: Operations Research & Management Science
Journal in the top 25%: Yes
No. of journals in the cat.: 81

Source of citations: WOS
Citations: 7

27 Benjamin Ivorra; Diène Ngom; Angel Manuel Ramos Del Olmo. Be-CoDiS: A mathematical model to predict the risk of human diseases spread between countries. Validation and application to the 2014 Ebola Virus Disease epidemic.Bulletin of Mathematical Biology. 77 - 9, pp. 1668 - 1704. Springer US, 2015. ISSN 0092-8240
DOI: 10.1007/s11538-015-0100-x
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Corresponding author: Yes
Impact source: SCOPUS
Impact index in year of publication: 0.768
Position of publication: 362
Category: Environmental Sciences
Journal in the top 25%: Yes
No. of journals in the cat.: 1.186

Impact source: ISI
Impact index in year of publication: 1.326
Position of publication: 45
Category: Biology
Journal in the top 25%: No
No. of journals in the cat.: 86

Source of citations: WOS
Citations: 32

Source of citations: SCOPUS
Citations: 38

28 Miguel Carrasco; Benjamin Ivorra; Angel Manuel Ramos del Olmo. Stochastic topology design optimization for continuous elastic materials. Computer Methods in Applied Mechanics and Engineering. 289, pp. 131 - 154. Elsevier, 2015. Available on-line at: <http://gateway.webofknowledge.com/gateway/Gateway.cgi?GWVersion=2&SrcAuth=ORCID&SrcApp=OrcidOrg&DestLinkType=FullRecord&DestApp=WOS_CPL&KeyUT=WOS:0
ISSN 0045-7825
DOI: 10.1016/J.CMA.2015.02.003
Type of production: Scientific paper
Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 3

Impact source: ISI
Category: Mathematics, Interdisciplinary Applications
Impact index in year of publication: 3.467
Journal in the top 25%: Yes
Position of publication: 6
No. of journals in the cat.: 101

Source of citations: WOS
Citations: 22

Source of citations: SCOPUS
Citations: 25

Relevant results: * Nota: Autores en orden alfabético

29 B. Martinez-Lopez; B. Ivorra; E. Fernandez-Carrion; A. M. Perez; A. Medel-Herrero; F. Sanchez-Vizcaino; C. Gortazar; A. M. Ramos del Olmo; J. M. Sanchez-Vizcaino. A multi-analysis approach for space-time and economic evaluation of risks related with livestock diseases: The example of FMD in Peru. Preventive Veterinary Medicine. 114 - 1, pp. 47 - 63. ELSEVIER, 2014. ISSN 0167-5877

DOI: 10.1016/J.PREVETMED.2016.01.015

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 5

Impact source: ISI
Category: Veterinary sciences
Impact index in year of publication: 2.167
Journal in the top 25%: Yes
Position of publication: 12
No. of journals in the cat.: 133

Source of citations: WOS
Citations: 11

Source of citations: SCOPUS
Citations: 12

Relevant results: Nota: Preventive Veterinary Medicine es una revista que publica, entre otras cosas, artículos sobre modelos matemáticos en epidemiologia. Por ejemplo: C.M. Evans, G.F. Medley, S.J. Creasey, L.E. Green, A stochastic mathematical model of the within-herd transmission dynamics of porcine reproductive and respiratory syndrome virus (PRRSV): Fade-out and persistence, Preventive Veterinary Medicine, 2010, https://doi.org/10.1016/j.prevetmed.2009.11.001.

30 Benjamin Ivorra; Bijan Mohammadi; Angel Manuel Ramos del Olmo. Design of code division multiple access filters based on sampled fiber Bragg grating by using global optimization algorithms. Optimization and Engineering. 15 - 3, pp. 677 - 695. Springer, 2014.

DOI: 10.1007/S11081-013-9212-Z

Type of production: Scientific paper
Format: Journal

Impact source: SCOPUS
Category: Aerospace Engeneering
Impact index in year of publication: 0.628
Journal in the top 25%: Yes
Position of publication: 29
No. of journals in the cat.: 107

Impact source: ISI
Category: Mathematics, Interdisciplinary Applications
Impact index in year of publication: 1.233
Journal in the top 25%: No
Position of publication: 41
No. of journals in the cat.: 99

Source of citations: WOS
Citations: 4

Source of citations: SCOPUS
Citations: 7

31 Benjamin Ivorra; Beatriz Martinez-Lopez; Jose M. Sanchez-Vizcaino; Angel M. Ramos del Olmo. Mathematical formulation and validation of the Be-FAST model for Classical Swine Fever Virus spread between and within farms. Annals of Operations Research. 219 - 1, pp. 25 - 47. Springer, 2014. ISSN 0254-5330

DOI: 10.1007/S10479-012-1257-4
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 4

Impact source: ISI
Category: Operations Research & Management Science
Impact index in year of publication: 1.217
Position of publication: 38
No. of journals in the cat.: 81

Source of citations: WOS
Citations: 13

Source of citations: SCOPUS
Citations: 15

32 Beatriz Martinez Lopez; Benjamin Ivorra; Angel Manuel Ramos del Olmo; Eduardo Fernandez Carrion; Jose Manuel Sanchez-Vizcaino Rodriguez. Evaluation of the risk of classical swine fever (CSF) spread from backyard pigs to other domestic pigs by using the spatial stochastic disease spread model Be-FAST: The example of Bulgaria. Veterinary Microbiology. 165 - 1, pp. 78 - 85. Elsevier Science, 2013. ISSN 0378-1135
Collection: DOI: 10.1016/j.vetmic.2013.01.045
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 5

Impact source: ISI
Category: Veterinary Sciences
Impact index in year of publication: 2.726
Journal in the top 25%: Yes
Position of publication: 4
No. of journals in the cat.: 132

Source of citations: WOS
Citations: 16

Source of citations: SCOPUS
Citations: 17

Relevant results: Nota: VETERINARY MICROBIOLOGY es una revista que publica, entre otras cosas, artículos sobre modelos matemáticos en epidemiologia. Por ejemplo: S. Karsten, G. Rave, J. Krieter, Monte Carlo simulation of classical swine fever epidemics and control: I. General concepts and description of the model, Veterinary Microbiology, Volume 108, Issues 3-4, 1 July 2005, Pages 187-198, ISSN 0378-1135, 10.1016/j.vetmic.2005.04.009.

33 Benjamin Ivorra; Juana L. Redondo; Juan G. Santiago; Pilar M. Ortigosa; Angel M. Ramos del Olmo. Two- and three-dimensional modeling and optimization applied to the design of a fast hydrodynamic focusing microfluidic mixer for protein folding. Physics of Fluids. 25 - 3, AIP, 2013.
Type of production: Scientific paper
Format: Journal
Impact source: ISI
Category: Mechanics
Impact index in year of publication: 2.040
Journal in the top 25%: Yes
Position of publication: 21
No. of journals in the cat.: 138

Source of citations: WOS
Citations: 19

Source of citations: SCOPUS
Citations: 20

34 Beatriz Martinez Lopez; Benjamin Ivorra; Diene Ngom; Angel Manuel Ramos del Omo; Jose Manuel Sanchez-Vizcaino Rodriguez. A novel spatial and stochastic model to evaluate the within- and between farm transmission of classical swine fever virus. II. Validation of the model. Veterinary Microbiology. 155, pp. 21 - 32. Elsevier Science, 2012. ISSN 0378-1135
DOI: 10.1016/J.VETMIC.2011.08.008
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 5

Impact source: ISI
Category: Veterinary Sciences
Impact index in year of publication: 3.33
Journal in the top 25%: Yes
Position of publication: 2
No. of journals in the cat.: 145

Source of citations: WOS
Citations: 11

Relevant results: Nota: VETERINARY MICROBIOLOGY es una revista que publica, entre otras cosas, artículos sobre modelos matemáticos en epidemiologia. Por ejemplo: S. Karsten, G. Rave, J. Krieter, Monte Carlo simulation of classical swine fever epidemics and control: I. General concepts and description of the model, Veterinary Microbiology, Volume 108, Issues 3-4, 1 July 2005, Pages 187-198, ISSN 0378-1135, 10.1016/j.vetmic.2005.04.009.

35 Miguel Carrasco; Benjamin Ivorra; Roberto Lecaros; Angel Manuel Ramos Del Olmo. An expected compliance model based on topology optimization for designing structures submitted to random loads. Differential Equations & Applications. 4 - 1, pp. 111 - 120. ELE-math, 2012. ISSN 1847-120X

DOI: 10.7153/DEA-04-07

Type of production: Scientific paper
Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Science Edition - MATHEMATICS, APPLIED
Impact index in year of publication: 0.42 (JCI-2017)
Position of publication: 236
No. of journals in the cat.: 309

Impact source: MathSciNet MCQ 2012
Impact index in year of publication: 0.44

Source of citations: WOS
Citations: 4

Relevant results: OTROS INDICIOS DE CALIDAD: * Autores en orden alfabético * El valor medio 'MCQ 2012' de todas las revistas indexadas en MathSciNet es 0.30. El 'MCQ'(Mathematical Citation Quotient) se calcula como el número de artículos publicados por una revista dividido por el número de citas en la base de datos de MathSciNet (considerando los 5 últimos años) * Revista indexada en: Mathematical Reviews (MathSciNet); Zentralblatt MATH (ZMATH); Referativnyi Zhurnal Matematika

36 Miguel Carrasco; Benjamin Ivorra; Angel Manuel Ramos del Olmo. Validation of a new variance-expected compliance model for structural optimization. Journal of Optimization Theory and Applications. 152, pp. 136 - 151. Springer/Plenum Publishers, 2012. ISSN 0022-3239

DOI: 10.1007/s10957-011-9874-7

Type of production: Scientific paper
Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Mathematics, Applied
Impact index in year of publication: 1.423
Journal in the top 25%: Yes
Position of publication: 37
No. of journals in the cat.: 247

Source of citations: WOS
Citations: 18

Source of citations: SCOPUS
Citations: 22

Relevant results: Nota: Autores en orden alfabético

37 Beatriz Martinez Lopez; Benjamin Ivorra; Angel Manuel Ramos del Olmo; José Manuel Sanchez-Vizcaino Rodriguez. A novel spatial and stochastic model to evaluate the within- and between-farm transmission of classical swine fever virus. I. General concepts and description of the model. Veterinary Microbiology. 147 - 3-4, pp. 300 - 309. Elsevier Science BV, 2011. ISSN 0378-1135

DOI: 10.1016/j.vetmic.2010.07.009

Type of production: Scientific paper
Format: Journal

Position of signature: 2

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 4

Impact source: ISI
Category: Veterinary Sciences
Impact index in year of publication: 3,327
Journal in the top 25%: Yes
Position of publication: 2
No. of journals in the cat.: 145

Source of citations: WOS
Citations: 36

Relevant results: Nota: Veterinary Microbiology es una revista que publica, entre otras cosas, artículos sobre modelos matemáticos en epidemiologia. Por ejemplo: S. Karsten, G. Rave, J. Krieter, Monte Carlo simulation of classical swine fever epidemics and control: I. General concepts and description of the model, Veterinary Microbiology, Volume 108, Issues 3-4, 1 July 2005, Pages 187-198, ISSN 0378-1135, 10.1016/j.vetmic.2005.04.009.

38 M Vázquez; E Tamayo Mas; N Rodrigo CAMPOS; FJ Pino Carrasco; R Picado Alvarez; R Granero Belinchon; C Cianci; BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; BEATRIZ MARTINEZ LOPEZ; JOSE MANUEL SANCHEZ-VIZCAINO RODRIGUEZ. Impact of the climatic change on animal diseases spread: the Example of Bluetongue in Spain. Revista Complutense de Ciencias Veterinarias. 5 - 1, pp. 120 - 131. Revistas Científicas Complutenses, 2011. ISSN 1988-2688

Type of production: Scientific paper
Format: Journal
Position of signature: 8
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Relevant results: OTROS INDICIOS DE CALIDAD: *COMITE CIENTIFICO INTERNACIONAL *CONTENIDO DE ARTICULOS DE INVESTIGACION *EVALUACION EXTERNA POR PARES DE LOS ARTICULOS ENVIADOS

39 Susana Gomez; Benjamin Ivorra; Angel Manuel Ramos del Olmo. Optimization of a pumping ship trajectory to clean oil contamination in the open sea. Mathematical and Computer Modelling. 54 - 1, pp. 477 - 489. Pergamon-Elsevier Science LTD, 2011. ISSN 0895-7177

DOI: 10.1016/j.mcm.2011.02.037

Type of production: Scientific paper
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Mathematics, Applied
Impact index in year of publication: 1.346
Journal in the top 25%: Yes
Position of publication: 40
No. of journals in the cat.: 245

Source of citations: WOS
Citations: 15

Source of citations: SCOPUS
Citations: 17

Relevant results: * Nota: Autores en orden alfabético * OTROS INDICIOS DE CALIDAD: trabajo divulgado por la agencia estatal 'Servicio de Información y Noticias Científicas': http://www.agenciasinc.es/Alertas/Cual-es-la-mejor-forma-de-bombear-vertidos-de-petroleo-en-mar-abierto

40 Chitra Alavani; Susana Gomez; Roland Glowinski; Benjamin Ivorra; Pallavi Joshi; Angel Manuel Ramos del Olmo. Modelling and Simulation of a Polluted Water Pumping Process. Mathematical and Computer Modelling. 51, pp. 461 - 472. Pergamon-Elsevier Science LTD, 2010. ISSN 0895-7177

DOI: 10.1016/j.mcm.2009.11.023

Type of production: Scientific paper
Format: Journal
Position of signature: 4
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 5

Impact source: ISI
Category: Science Edition - Mathematics, Applied
Impact index in year of publication: 1.066
Journal in the top 25%: No
Position of publication: 69
No. of journals in the cat.: 236

Source of citations: WOS
Citations: 7

Source of citations: SCOPUS **Citations:** 9

Relevant results: Nota: Autores en orden alfabético

41 Juan Antonio Infante del Rio; Benjamin Ivorra; Angel Manuel Ramos del Olmo; Jose Maria Rey Cabezas. On the Modelling and Simulation of High Pressure Processes and Inactivation of Enzymes in Food Engineering. Mathematical Models and Methods in Applied Sciences. 19 - 12, pp. 2203 - 2229. World Scientific Publ CO PTE LTD, 2009. ISSN 0218-2025

DOI: 10.1142/S0218202509004091

Type of production: Scientific paper **Format:** Journal

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 4

Impact source: ISI **Category:** Science Edition - Mathematics, Applied

Impact index in year of publication: 2.1 **Journal in the top 25%:** Yes

Position of publication: 9 **No. of journals in the cat.:** 204

Source of citations: WOS **Citations:** 18

Relevant results: Nota: Autores en orden alfabético

42 Benjamin Ivorra; Angel Manuel Ramos del Olmo; Bijan Mohammadi. Optimization strategies in credit portfolio management. Journal of Global Optimization. 43 - 2, pp. 415 - 427. Springer, 2009. ISSN 0925-5001

DOI: 10.1007/s10898-007-9221-6

Type of production: Scientific paper **Format:** Journal

Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 3

Impact source: ISI **Category:** Science Edition - Mathematics, Applied

Impact index in year of publication: 1.45 **Journal in the top 25%:** Yes

Position of publication: 39 **No. of journals in the cat.:** 204

Source of citations: WOS **Citations:** 17

Source of citations: SCOPUS **Citations:** 19

43 Damien Isèbe; Frédéric Bouchette; Pascal Azerad; BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi. Shape optimization of geotextile tubes for sandy beach protection. International Journal for Numerical Methods in Engineering. 74/8, pp. 1262 - 1277. JOHN WILEY & SONS LTD, 2008. ISSN 0029-5981

DOI: 10.1002/nme.2209

Type of production: Scientific paper **Format:** Journal

Position of signature: 4 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI **Category:** Science Edition - Mathematics, Interdisciplinary Applications

Impact index in year of publication: 2.23 **Journal in the top 25%:** Yes

Position of publication: 7 **No. of journals in the cat.:** 76

Source of citations: WOS **Citations:** 22

Source of citations: SCOPUS **Citations:** 26

44 BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; Bijan Mohammadi. Semideterministic Global Optimization Method: Application to a Control Problem of the Burgers Equation. Journal of Optimization Theory and Applications. 135 - 3, pp. 549 - 561. SPRINGER/PLENUM PUBLISHERS, 2007. ISSN 0022-3239

DOI: 10.1007/s10957-007-9251-8

Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Science Edition - MATHEMATICS, APPLIED
Impact index in year of publication: 0.69
Journal in the top 25%: No
Position of publication: 84
No. of journals in the cat.: 165

Impact source: SCOPUS
Category: Mathematics, Applied
Impact index in year of publication: 1.128
Journal in the top 25%: Yes
Position of publication: 71
No. of journals in the cat.: 286

Source of citations: WOS
Citations: 14

Source of citations: SCOPUS
Citations: 18

45 Larvi Debiane; BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Thierry Poinsot; Frank Nicoud; Alexandre Ern; Hernst Pitsch. A low-complexity global optimization algorithm for temperature and pollution control in flames with complex chemistry. International Journal of Computational Fluid Dynamics. 20 - 2, pp. 93 - 98. TAYLOR & FRANCIS LTD, 2006. ISSN 1061-8562

DOI: 10.1080/10618560600771758

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Mechanics
Impact index in year of publication: 0.38
Journal in the top 25%: No
Position of publication: 94
No. of journals in the cat.: 109

Source of citations: WOS
Citations: 10

46 David Hertzog; BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Juan Santiago; Olgica Bakajin. Optimization of a Microfluidic Mixer for Studying Protein Folding Kinetics. Analytical Chemistry. 78 - 13, pp. 4299 - 4306. AMER CHEMICAL SOC, 2006. ISSN 0003-2700

DOI: 10.1021/ac051903j

Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: ISI
Category: Science Edition - Chemistry, Analytical
Impact index in year of publication: 5.65
Journal in the top 25%: Yes
Position of publication: 1
No. of journals in the cat.: 68

Source of citations: WOS
Citations: 73

Source of citations: SCOPUS
Citations: 79

Source of citations: GOOGLE Scholar
Citations: 99

47 BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Olivier Durand; Laurent Dumas; Patrick Redont. Semi-Deterministic vs. Genetic Algorithms for Global Optimization of Multichannel Optical Filters. International Journal of Computational Science and Engineering. 2 - 3, pp. 170 - 178. INDERSCIENCE PUBLISHERS, 2006. ISSN 1742-7185

DOI: 10.1504/IJCSE.2006.012769
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Impact source: SCOPUS
Category: Computational Mathematics
Impact index in year of publication: 0.102
Journal in the top 25%: No
Position of publication: 88
No. of journals in the cat.: 100
Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 0.28 (JCI-2017)
Position of publication: 121
No. of journals in the cat.: 142
Source of citations: WOS
Citations: 13
Source of citations: SCOPUS
Citations: 17

48 BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; David Hertzog; Juan Santiago. Semi-deterministic and genetic algorithms for global optimization of microfluidic protein-folding devices. International Journal for Numerical Methods in Engineering. 66 - 2, pp. 319 - 333. JOHN WILEY & SONS LTD, 2006. ISSN 0029-5981
DOI: 10.1002/nme.1562
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Impact source: ISI
Category: Science Edition - Mathematics, Interdisciplinary Applications
Impact index in year of publication: 1.50
Journal in the top 25%: Yes
Position of publication: 14
No. of journals in the cat.: 65
Source of citations: WOS
Citations: 25
Source of citations: SCOPUS
Citations: 28

49 Ferrandez, M. R.; Ivorra, B.; Redondo, J. L.; Ramos, A. M.; Ortigosa, P. M.. Predicting The Spread Of Epidemiological Diseases By Using A Multi-Objective Algorithm. AIP Conference Proceedings. 2070, pp. 1 - 4. American Institute of Physics, 2019. ISSN 0094-243X, ISBN 978-073541798-4
DOI: 10.1063/1.5089983
Type of production: Book chapter
Position of signature: 2
Degree of contribution: Author or co-author of chapter in book
Total no. authors: 5
Impact source: SCOPUS
Category: Conferences and Proceedings
Impact index in year of publication: 0.182

50 Diène Ngom; Benjamin Ivorra; Angel Manuel Ramos Del Olmo. Stability analysis of a compartmental SEIHRD model for the Ebola virus disease. Serie: Texts in Biomathematics - Mathematical Methods and Models in Biosciences. 4 - 1, pp. 44 - 56. Biomath Forum, 2018. ISSN 2603-3046
Type of production: Book chapter
Format: Book
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Corresponding author: No
Relevant results: OTROS INDICIOS DE CALIDAD: *Evaluación externa por pares de los artículos enviados.

51 M.R. Ferrández; J.L. Redondo; Benjamin Ivorra; Angel Manuel Ramos Del Olmo; P.M. Ortigosa. A Multi-Objective Methodology to Optimize High-Pressure/Thermal Treatment in Food Industry. Proceedings of XXV CEDYA. pp. 710 - 717. 2017. Available on-line at: <http://cedya2017.org/archivos/libroComunicacionesDefinitivasCEDYA+CMA2017.pdf>. ISBN 978-84-944402-1-2

Type of production: Book chapter
Format: Book
Position of signature: 3
Total no. authors: 5
Corresponding author: No

52 M.R. Ferrández; J.L. Redondo; Benjamin Ivorra; Angel Manuel Ramos Del Olmo; P.M. Ortigosa. Optimization of Enzymes Inactivation in High Pressure Processes. Proceedings of the XIII GLOBAL OPTIMIZATION WORKSHOP GOW'16. pp. 69 - 72. University of Minho, 2016. ISBN 978-989-20-6764-3

Type of production: Book chapter
Format: Book
Position of signature: 3
Total no. authors: 5
Corresponding author: No
Relevant results: * Disponible online: http://apolo.dps.uminho.pt/gow16/Proceedings_GOW16.pdf#page=80

53 A.M. Ramos del Olmo; B. Ivorra; D. Ngom; E. Fernandez Carrión; B. Martínez-Lopez; J.M. Sanchez-Vizcaino. Be-CoDiS and Be-FAST: Mathematical models to predict the spread of human and livestock diseases with real data. Application to the 2014-15 Ebola Virus Disease epidemic and livestock diseases. Microbes in the Spotlight: Recent Progress in the Understanding of Beneficial and Harmful Microorganisms. pp. 422 - 426. Universal Publishers, 2016. ISBN 1627346120

Type of production: Book chapter
Format: Book

54 Benjamin Ivorra; Diène Ngom; Angel Manuel Ramos Del Olmo. Be-CoDiS: A mathematical model to predict the risk of human diseases spread between countries. Validation and application to the 2014 Ebola Virus Disease epidemic.Proceedings of XXIV CEDYA. pp. 1 - 6. Editorial UCA, 2015. ISBN 978-84-9828-527-7

Type of production: Book chapter
Format: Book
Corresponding author: Yes

55 Gomez S.; Ivorra B.; Glowinski R.; Ramos A.M. del Olmo. Modeling the Optimal Trajectory of a Skimmer Ship to Clean Oil Spills in the Open Sea. Proceedings of the SPE Latin American and Caribbean Health, Safety, Environment and Sustainability Conference. pp. 347 - 375. Society of Petroleum Engineers, 2015. ISBN 978-151081166-9

DOI: 10.2118/174150-MS
Type of production: Book chapter
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Impact source: SCOPUS
Category: Environmental Sciences
Impact index in year of publication: 0.114
Journal in the top 25%: No
Position of publication: 1.258
No. of journals in the cat.: 1.442
Source of citations: SCOPUS
Citations: 3
Source of citations: Google Scholar
Citations: 5

56 Gomez, S.; Ivorra, B.; Ramos, A.M.; Glowinski, R.. Modeling, simulation and optimization of a polluted water pumping process in open sea. Proceedings of the 36th AMOP Technical Seminar on Environmental Contamination and Response 2013. pp. 225 - 243. Environment and Climate Change Canada, 2013.

Type of production: Book chapter
Format: Book
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Impact source: SCOPUS
Category: Environmental Science

Impact index in year of publication: 0.133

57 Juan Bello Rivas; Jérôme Harmand; BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; Alain Rapaport. Bioreactor shape optimization Modeling, simulation, and shape optimization of a simple bioreactor for water treatment. Les STIC pour l'environnement 2011. pp. 125 - 141. TRANSVALOR - La Presse de mines, 2011. ISBN 978-2-911256-46-2

Type of production: Book chapter **Format:** Book

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Source of citations: Google Scholar **Citations:** 3

Relevant results: Nota: Autores en orden alfabético.

58 NADIA ALEXANDRA SOFIA SMITH; ANGEL MANUEL RAMOS DEL OLMO; BENJAMIN PIERRE PAUL IVORRA; JOSE MARIA REY CABEZAS; JUAN ANTONIO INFANTE DEL RIO; Andrés Fraguela. Inverse problems in High Pressure Processes and Food Engineerng. First Symposium on Inverse Problems and its applications (Ixtapa 2010). pp. 39 - 56. Casa abierta al tiempo, 2011. ISBN 978-607-477-505-1

Type of production: Book chapter **Format:** Book

Position of signature: 3 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Source of citations: Google Scholar **Citations:** 1

Relevant results: Nota: Autores en orden alfabético.

59 ANGEL MANUEL RAMOS DEL OLMO; BENJAMIN PIERRE PAUL IVORRA; BEATRIZ MARTINEZ LOPEZ; JOSE MANUEL SANCHEZ-VIZCAINO RODRIGUEZ. Mathematical modeling for real epidemics. The case of classical swine fever virus. Proceeding of XXII CEDYA. pp. 1 - 15. Universitat de les Illes Balears, 2011. Available on-line at: <http://www.uibcongres.org/imgdb/archivo_dpo10402.pdf>. ISBN 978-84-694-4935-6

Type of production: Book chapter **Format:** Book

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

60 BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; Susana Gomez; Roland Glowinski. Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea. Proceeding of XXII CEDYA. pp. 1 - 15. Universitat de les Illes Balears, 2011. Available on-line at: <http://www.uibcongres.org/imgdb/archivo_dpo10398.pdf>. ISBN 978-84-694-4935-6

Type of production: Book chapter **Format:** Book

Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

61 Andrés Fraguela; JUAN ANTONIO INFANTE DEL RIO; BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; JOSE MARIA REY CABEZAS; NADIA ALEXANDRA SOFIA SMITH. Mathematical Modelling in Food Engineering. Numerical Simulation in Physics and Engineering: Proceedings of the XIV Spanish-French Jacques-Louis Lions School. pp. 283 - 301. Universidad de la Coruña, 2010. ISBN 978-84-9749-420-5

Type of production: Book chapter **Format:** Book

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Relevant results: Nota: Autores en orden alfabético.

62 Juan Bello Rivas; Juan-Antonio Infante; Benjamin Ivorra; Angel Manuel Ramos del Olmo; Juana Lopez Redondo; Pilar Mart´?nez Ortigosa; Jose Maria Rey; Nadia Smith. Mathematical modeling for protein folding devices. Applications to high pressure processing and microfluidic mixers.Proceeding of EngOpt 2010. pp. 1 - 10. IST - Instituto Superior Técnico, 2010. Available on-line

at: <http://www1.dem.ist.utl.pt/engopt2010/Book_and_CD/Papers_CD_Final_Version/pdf/06/01065-01.pdf>. ISBN 978-989-96264-3-0

Type of production: Book chapter **Format:** Book

Degree of contribution: Author or co-author of article in journal without external admissions assessment committee

Source of citations: Google Scholar **Citations:** 1

Relevant results: OTROS INDICIOS DE CALIDAD: * Autores en orden alfabético

63 Miguel Carrasco; Benjamin Ivorra; Rodrigo Lecaros; Angel Manuel Ramos del Olmo. Validation of a new variance-expected compliance model for structural optimization. Proceeding of EngOpt 2010. pp. 1 - 10. IST - Instituto Superior Técnico, 2010. Available on-line at: <http://lemac1.dem.ist.utl.pt/engopt2010/Book_and_CD/Papers_CD_Final_Version/pdf/01/01366-01.pdf>. ISBN 978-989-96264-3-0

Type of production: Book chapter **Format:** Book

Degree of contribution: Author or co-author of article in journal without external admissions assessment committee

Source of citations: GOOGLE Scholar **Citations:** 1

Relevant results: OTROS INDICIOS DE CALIDAD: * Autores en orden alfabético

64 BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; BEATRIZ MARTINEZ LOPEZ; JOSE MANUEL SANCHEZ-VIZCAINO RODRIGUEZ. Modeling classical swine fever spread using a spatial hybrid model. Proceeding of XXI CEDYA. pp. 1 - 15. Universidad de Castilla-La Mancha, 2009. Available on-line at: <http://www.mat.ucm.es/~ivorra/papers/29-CEDYA-2009-CSF.pdf>. ISBN 978-84-692-6473-7

Type of production: Book chapter **Format:** Book

Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

Source of citations: GOOGLE Scholar **Citations:** 1

65 Ivorra Benjamin; Bijan Mohammadi; Angel Manuel Ramos del Olmo. Design of Code Division Multiple Access Filters Using Global Optimization Techniques. Proceeding of EngOpt 2008. pp. 1 - 9. COPPE/UFRJ, 2008. Available on-line at: <http://www.engopt.org/08/nukleo/pdfs/0109_engopt_cdma_ivorra_ramos_moham_moreau.pdf>. ISBN 978-85-7650-156-5

Type of production: Book chapter **Format:** Book

Position of signature: 1 **Degree of contribution:** Author or co-author of scientific or technical document for the general public

66 Juan A. Infante; Benjamin Ivorra; Angel Manuel Ramos del Olmo; Jose M. Rey. Modelling and Simulation of Heat and Mass Transfer for Liquid Type Foods under High Pressure Processes. Proceeding of Comsol Conference Worldwide 2008. pp. 73 - 79. COMSOL, 2008. Available on-line at: <http://www.comsol.com/press/news/article/534/>. ISBN 978-0-9766792-8-8

Type of production: Book chapter **Format:** Book

Degree of contribution: Author or co-author of article in journal without external admissions assessment committee

Relevant results: OTROS INDICIOS DE CALIDAD: * Nota: Autores en orden alfabético

67 Damien Isèbe; BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Pascal Azerad; Frédéric Bouchette. Progress in Global Optimization and Shape Design. Modeling, Simulation and Optimization of Complex Processes. pp. 303 - 312. SPRINGER-VERLAG, 2008. ISBN 978-3-540-79408-0

Type of production: Book chapter **Format:** Book

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Source of citations: WOS **Citations:** 1

Source of citations: Google Scholar **Citations:** 1

Relevant results: OTROS INDICIOS DE CALIDAD: libro indexado en el ISI Web Of Knowledge.

68 Miguel Carrasco; Benjamin Ivorra; Felipe Alvarez; Angel Manuel Ramos del Olmo. Validation of a new variance-expected compliance model for structural optimization. Proceeding of EngOpt 2008. pp. 1 - 10. COPPE/UFRJ, 2008. Available on-line at: <http://www.engopt.org/nukleo/pdfs/0099_engopt_truss_carrasco_ivorra_ramos_alvarez.pdf>. ISBN 978-85-7650-156-5

Type of production: Book chapter **Format:** Book

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

Source of citations: GOOGLE Scholar **Citations:** 2

69 BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Laurent Dumas; Olivier Durand. Semi-Deterministic Recursive Optimization Methods for Multichannel Optical Filters. Numerical Mathematics and Advanced applications. 2, pp. 1007 - 1014. Springer Science, 2006. ISBN 978-3-540-34288-5

DOI: 10.1007/978-3-540-34288-5_100

Type of production: Book chapter **Format:** Book

Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Source of citations: Google Scholar **Citations:** 1

Relevant results: OTROS INDICIOS DE CALIDAD: libro indexado en el ISI Web Of Knowledge.

70 Pascal Azerad; Damien Isèbe; Benjamin Ivorra; Bijan Mohammadi; Frédéric Bouchette. Optimal shape design of coastal structures minimizing coastal erosion. Proceeding of the CIRM Workshop sur les Problèmes Inverses. pp. 63 - 67. Centre International de Rencontres Mathématiques, 2005.

Type of production: Book chapter

Position of signature: 3 **Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

Source of citations: Google Scholar **Citations:** 3

71 BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Damien Isèbe. Optimisation globale à complexité réduite. Calcul des structures. 2, pp. 241 - 246. Hermes Science Publications - Lavoisier, 2005. ISBN 2-7462-1140-8

Type of production: Book chapter **Format:** Book

Position of signature: 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Source of citations: GOOGLE Scholar **Citations:** 5

Relevant results: OTROS INDICIOS DE CALIDAD: De este libro se ha editado un "Special Issue: CALCUL DES STRUCTURES - GIENS 2005" en la revista "European Journal of Computational Mechanics" VOL 15/1-2-3 (2006) (ISBN: 1779-7179)

72 Larvi Debiane; BENJAMIN PIERRE PAUL IVORRA; Bijan Mohammadi; Frank Nicoud; Thierry Poinsot; Hernst Pitsch; Alexandre Ern. Temperature and pollution control in flames. Studying turbulence using numerical simulation databases. 10, pp. 367 - 375. Center for Turbulence Research Publications, 2004.

Type of production: Book chapter **Format:** Book

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Source of citations: GOOGLE Scholar **Citations:** 11

Relevant results: OTROS INDICIOS DE CALIDAD: *Artículo de libre acceso, disponible online: https://web.stanford.edu/group/ctr/ctrsp04/mohammadi.pdf *Revista publicada en colaboración con la NASA y AFSOR

73 Benjamin Ivorra; Angel M. Ramos. MODELIZACIÓN Y SIMULACIÓN EN SISTEMAS DINÁMICOS. Campus Virtual de la asignatura. pp. 1 - 256. Máster en Ingeniería Matemática, 2021.
Type of production: Material Docente **Format:** Scientific and technical document or report

74 Benjamin Ivorra. Optimización. Campus Virtual de la asignatura. pp. 1 - 54. Máster Propio Universitario en Simulación Numérica en Ciencia e Ingeniería con Comsol Multiphysics, 2019.
Type of production: Material Docente **Format:** Scientific and technical document or report

75 Benjamin Ivorra. Programación con COMSOL API y MATLAB. Campus Virtual de la asignatura. pp. 1 - 42. Máster Propio Universitario en Simulación Numérica en Ciencia e Ingeniería con Comsol Multiphysics, 2019.
Type of production: Material Docente **Format:** Scientific and technical document or report

Works submitted to national or international conferences

1 **Title of the work:** Enhancing N-PERT Solar Cells under the Atacama Desert Solar Spectrum
Name of the conference: 33rd European Conference on Operational Research
City of event: Copenhague, Denmark
Date of event: 30/06/2024
End date: 03/07/2024
Organising entity: Association of European Operational Research Societies
Benjamin Ivorra; Pablo Ferrada; Angel Ramos; Gabriel López.

2 **Title of the work:** Enhancing N-PERT Solar Cells under the Atacama Desert Solar Spectrum
Name of the conference: XXVIII CONGRESO DE ECUACIONES DIFERENCIALES Y APLICACIONES
City of event: Bilbao, Spain
Date of event: 24/06/2024
End date: 28/06/2024
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Benjamin Ivorra; Pablo Ferrada; Angel Ramos; Gabriel López.

3 **Title of the work:** A multi-objective approach to identify parameters of compartmental epidemiological models - Application to Ebola Virus Disease epidemics.
Name of the conference: 23rd Conference of the International Federation of Operational Research Societies
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Santiago de Chile, Chile
Date of event: 10/07/2023
End date: 14/07/2023
Organising entity: International Federation of Operational Research Societies
Ivorra; Ruiz Férrandez; Lopéz Redondo; Ortigosa; Ramos.

4 **Title of the work:** Resolución de problemas de diseño industrial mediante el módulo de optimización y COMSOL Multiphysics con MATLAB
Name of the conference: Iberian COMSOL Multiphysics Conference 2022

Type of event: Workshop
Geographical area: European Union
Type of participation: Participatory - Plenary session
Reasons for participation: Upon invitation
City of event: Malaga, Spain
Date of event: 17/06/2022
End date: 17/06/2022
Organising entity: Universidad de Málaga
Type of entity: University
With external admission assessment committee: Yes
Benjamin Ivorra.

5 **Title of the work:** A compositional Eulerian approach for modelling oil spills in the sea
Name of the conference: 8th European Congress on Computational Methods in Applied Sciences and Engineering
Type of event: Conference
Geographical area: European Union
Type of participation: Participatory - oral communication
City of event: Oslo, Norway
Date of event: 05/06/2022
End date: 09/06/2022
Organising entity: European Community on Computational Methods in Applied Sciences
Ivorra; Gomez; Carrera; Ramos.

6 **Title of the work:** Theta-SIR type models to study the COVID-19 pandemic
Name of the conference: XXVI Congreso de Ecuaciones Diferenciales y Aplicaciones
City of event: Gijón, Spain
Date of event: 14/06/2021
End date: 18/06/2021
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Miriam Ruíz Ferrández; Maria Vela Pérez; Benjamin Ivorra; Alicja Kubik; Angel Ramos.

7 **Title of the work:** Stability and sensitivity analysis of Be-CoDiS, an epidemiological model to predict the spread of human diseases between countries. Application to the Ebola Virus Disease.
Name of the conference: 9th International Congress on Industrial and Applied Mathematics
Type of event: Conference
Geographical area: Non EU International
Type of participation: Participatory - oral communication
City of event: Valencia, Spain
Date of event: 15/07/2019
End date: 19/07/2019
Organising entity: International Council for Industrial and Applied Mathematics
Benjamin Ivorra; Diène Ngom; Angel Ramos. "Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea". pp. 1 - 10.

8 **Title of the work:** SOSMAR - A software for studying the evolution and the cleaning process of Oil Spills in Open Sea
Name of the conference: 30th European Conference on Operational Research
Type of event: Conference
Geographical area: European Union
Type of participation: Participatory - oral communication
City of event: Dublin, Ireland
Date of event: 23/06/2019
End date: 26/06/2019
Organising entity: Association of European Operational Research Societies'
Benjamin Ivorra; Susana Gómez; Angel M. Ramos.

9 **Title of the work:** A multi-objective methodology applied to decision support for high-pressure thermal processes in food treatment
Name of the conference: 27th European Conference on Operational Research
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Valencia, Spain
Date of event: 08/07/2018
End date: 11/07/2018
Organising entity: Association of European Operational Research Societies'
Benjamin Ivorra; Miriam R. Ferrández; Juana L. Redondo; Angel M. Ramos; Pilar M. Ortigosa.

10 **Title of the work:** Nonlinear Advection-Diffusion-Reaction Phenomena Involved in the Evolution and Pumping of Oil in Open Sea: Modeling, Numerical Simulation and Validation Considering the Prestige and Oleg Naydenov Oil Spill Cases
Name of the conference: XXV Congreso de Ecuaciones Diferenciales y Aplicaciones (CEDYA)
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Cartagena, Spain
Date of event: 26/06/2017
End date: 30/06/2017
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Type of contribution: Scientific paper
Benjamin Ivorra; Susana Gomez; Angel Ramos; Roland Glowinski. "Nonlinear Advection-Diffusion-Reaction Phenomena Involved in the Evolution and Pumping of Oil in Open Sea: Modeling, Numerical Simulation and Validation Considering the Prestige and Oleg Naydenov Oil Spill Cases". En: Proceedings of XXV CEDYA. pp. 710 - 717. 2017. ISBN 978-84-944402-1-2

11 **Title of the work:** Modeling and optimization applied to the design of fast hydrodynamic focusing microfluidic mixer for protein folding.
Name of the conference: The 19th European Conference on Mathematics for Industry
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 13/06/2016
End date: 17/06/2016
Organising entity: European Consortium for Mathematics in Industry
B. Ivorra; A.M. Ramos; Juana López Redondo; Pilar Martínez Ortigosa; Juan G. Santiago.

12 **Title of the work:** Stochastic topology design optimization for continuous elastic materials
Name of the conference: 27th European Conference on Operational Research
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Glasgow, United Kingdom
Date of event: 12/07/2015
End date: 15/07/2015
Organising entity: Association of European Operational Research Societies'
Benjamin Ivorra; Miguel Carrasco Briones; Angel Manuel Ramos del Olmo.

13 **Title of the work:** Solving industrial design problems by using COMSOL Multiphysics with MATLAB.
Name of the conference: Iberian COMSOL Multiphysics Conference 2015
Type of event: Workshop **Geographical area:** European Union
Type of participation: Participatory - Plenary session **Reasons for participation:** Upon invitation
City of event: Malaga, Spain
Date of event: 11/06/2015
End date: 11/06/2015
Organising entity: Universidad de Málaga **Type of entity:** University
With external admission assessment committee: Yes
Benjamin Ivorra.

14 **Title of the work:** Be-CoDiS: A deterministic mathematical model to predict the risk of human diseases spread between countries. Application to the 2014-15 Ebola Virus Disease epidemic
Name of the conference: XXIV Congreso de Ecuaciones Diferenciales y Aplicaciones (CEDYA)
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Cadíz, Spain
Date of event: 08/06/2015
End date: 12/06/2015
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Benjamin Ivorra; Diène Ngom; Angel Ramos. "Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea". En: CD-ROM: Proceedings of the XXII CEDYA. pp. 1 - 10. 2015. Available on-line at: <http://cedya2015.uca.es/cedya2015proceedings>. ISBN 978-84--9828-527-7

15 **Title of the work:** Be-CoDiS: A mathematical model to predict the risk of human diseases spread between countries. Validation and application to the 2014-15 Ebola Virus Disease epidemic
Name of the conference: II Workshop on Modelling and Simulation of Epidemics
Type of event: Workshop **Geographical area:** European Union
Type of participation: Participatory - oral communication
Date of event: 26/05/2015
End date: 26/05/2015
Organising entity: Universidad Complutense de Madrid **Type of entity:** University
Benjamin Ivorra; Diène Ngom; Angel Ramos.

16 **Title of the work:** Be-FAST: a spatio-temporal stochastic model for predicting livestock diseases spread between- and within- farms and its economic impact.
Name of the conference: A Two-day Meeting on Mathematical Biology
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication **Reasons for participation:** Upon invitation
City of event: Madrid, Spain
Date of event: 02/10/2014
End date: 03/10/2014
Organising entity: INSTITUTO DE CIENCIAS MATEMATICAS **Type of entity:** State agency
Benjamin Ivorra; Beatriz Martinez-Lopez; Eduardo Fernandez Carrion; Jose M. Sanchez-Vizcaino; Angel Manuel Ramos del Olmo.

17 **Title of the work:** Modeling, Simulation and Optimization of a Oil Polluted Water Pumping Process in Open Sea
Name of the conference: 20th Conference of the International Federation of Operational Research Societies (IFORS)
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Barcelona, Spain
Date of event: 13/07/2014
End date: 18/07/2014
Organising entity: International Federation of Operational Research Societies
Benjamin Ivorra; Angel Manuel Ramos del Olmo; Susana Gomez; Roland Glowinski.

18 **Title of the work:** Evaluation of the risk of the spread and the economic impact of Classical Swine Fever and Foot-and-Mouth Disease by using the epidemiological model Be-FAST.
Name of the conference: 26rd European Conference on Operational Research
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Roma, Italy
Date of event: 01/07/2013
End date: 04/07/2013
Organising entity: Association of European Operational Research Societies'
Benjamin Ivorra; Beatriz Martinez-Lopez; Eduardo Fernandez Carrion; Jose M. Sanchez-Vizcaino; Angel Manuel Ramos del Olmo.

19 **Title of the work:** Modeling, simulation and optimization of a polluted water pumping process in open sea
Name of the conference: XXVI Jornada de Matemática de la Zona Sur
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication **Reasons for participation:** Open access
City of event: Quinamávida, Chile
Date of event: 24/04/2013
End date: 26/04/2013
Organising entity: Universidad Católica del Maule
City organizing entity: Talca, Chile
B. Ivorra; Á.M. Ramos; S. Gomez; R. Glowinski.

20 **Title of the work:** Be-FAST -- Between Farm Animal Spatial Transmission: an epidemiological model for studying the spread and the economic impact of animal diseases.
Name of the conference: Society for Veterinary Epidemiology and Preventive Medicine Annual Meeting 2013
Type of event: Conference **Geographical area:** Non EU International
Type of participation: 'Participatory - poster **Reasons for participation:** Open access
City of event: Madrid, Community of Madrid, Spain
Date of event: 20/03/2013
End date: 22/03/2013
Organising entity: Society for Veterinary Epidemiology and Preventive Medicine
City organizing entity: Londres, United Kingdom
B. Ivorra; E. Fernandez Carrillon; B. Martinez-Lopez; Á.M. Ramos; J.M. Sanchez-Vizcaino.

21 **Title of the work:** A multi-layers method to improve optimization algorithms. Application to the design of bioreactors for water treatment.
Name of the conference: 25rd European Conference on Operational Research

Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: Vilnius, Lithuania
Date of event: 08/07/2012
End date: 11/07/2012
Organising entity: Association of European Operational Research Societies'
Benjamin Ivorra; Juan M. Bello Rivas; Alain Rapaport; Jerome Harmand; Angel Manuel Ramos del Olmo.

22 **Title of the work:** A multi-layers method to improve optimization algorithms. Application to the design of bioreactors for water treatment.
Name of the conference: Séptimas Jornadas Franco-Chilenas de Optimización
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote talk **Reasons for participation:** Upon invitation
City of event: Perpignan (FRANCIA), France
Date of event: 01/12/2011
End date: 03/12/2011
Organising entity: Université de Perpignan Via Domitia
Benjamin Ivorra; Jerome Harmand; Alain Rapaport; Juan M. Bello Rivas; Angel Ramos.

23 **Title of the work:** Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea
Name of the conference: XXII Congreso de Ecuaciones Diferenciales y Aplicaciones (CEDYA)
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: PALMA DE MALLORCA, Spain
Date of event: 05/09/2011
End date: 09/09/2011
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Benjamin Ivorra; Roland Glowinski; Susana Gomez; Angel Ramos. "Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea". En: CD-ROM: Proceedings of the XXII CEDYA. pp. 1 - 10. 2011. Available on-line at: <http://www.uibcongres.org/imgdb/archivo_dpo10398.pdf>. ISBN 978-84-694-4935-6

24 **Title of the work:** Be-FAST: A spatial epidemiological model for between -and within- farms disease spread. Application to Classical Swine Fever.
Name of the conference: Workshop on Modelling and Simulation of Epidemics
Type of event: Workshop **Geographical area:** European Union
Type of participation: Participatory - oral communication
Date of event: 06/05/2011
End date: 06/05/2011
Organising entity: Universidad Complutense de Madrid **Type of entity:** University
Benjamin Ivorra; Jose M. Sanchez-Vizcaino; Angel Ramos; Beatriz Martinez-Lopez.

25 **Title of the work:** Mathematical modeling for protein folding devices. Applications to high pressure processing and microfluidic mixers.
Name of the conference: ENGOPT 2010
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: Lisboa (PORTUGAL), Portugal
Date of event: 06/09/2010

End date: 09/09/2010
Organising entity: Instituto Superior Técnico
Publication in conference proceedings: Yes
Type of contribution: Scientific paper
BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; JUAN ANTONIO INFANTE DEL RIO; JOSE MARIA REY CABEZAS; NADIA ALEXANDRA SOFIA SMITH. "Mathematical modeling for protein folding devices. Applications to high pressure processing and microfluidic mixers". En: CD-ROM Proceedings ENGOPT 2010. pp. 1 - 10. Available on-line at: <http://www1.dem.ist.utl.pt/engopt2010/Book_and_CD/Papers_CD_Final_Version/pdf/06/01065-01.pdf>. ISBN 978-989-96264-3-0

26 **Title of the work:** Modelling classical swine fever spread using a spatial hybrid model
Name of the conference: XXI Congreso de Ecuaciones Diferenciales y Aplicaciones (CEDYA)
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: CIUDAD REAL, Spain
Date of event: 21/09/2009
End date: 25/09/2009
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Type of contribution: Scientific paper
BENJAMIN IVORRA; ANGEL MANUEL RAMOS DEL OLMO; BEATRIZ MARTINEZ LOPEZ; JOSE MANUEL SANCHEZ-VIZCAINO RODRIGUEZ. "Modelling classical swine fever spread using a spatial hybrid model". En: CD-ROM Proceeding XXI CEDYA. pp. 1 - 8. 21/09/2009. Available on-line at: <http://matematicas.uclm.es/cedya09/archive/textos/55_Ivorra-B.pdf>. ISBN 978-84-692-6473-7

27 **Title of the work:** Modeling classical swine fever spread using a spatial hybrid model
Name of the conference: 23rd European Conference on Operational Research
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: BONN (ALEMANIA), Germany
Date of event: 05/07/2009
End date: 08/07/2009
Organising entity: Association of European Operational Research Societies
BENJAMIN PIERRE PAUL IVORRA; JOSE M. SANCHEZ-VIZCAINO; BEATRIZ MARTINEZ-LOPEZ; ANGEL MANUEL RAMOS DEL OLMO.

28 **Title of the work:** Enzymatic inactivation under high pressure processes: models, simulation and mathematical analysis
Name of the conference: Workshop of Innovative Applications of Nonthermal Technologies in Foods: Technology, Safety, Health and Consumer Acceptability
Type of event: Conference **Geographical area:** National
Type of participation: 'Participatory - poster
City of event: MADRID, Spain
Date of event: 19/11/2008
End date: 22/11/2008
Organising entity: Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
JOSE MARIA REY CABEZAS; BENJAMIN PIERRE PAUL IVORRA; ANGEL MANUEL RAMOS DEL OLMO; JUAN ANTONIO INFANTE DEL RIO.

29 **Title of the work:** Design of Code Division Multiple Access Filters Using Global Optimization Techniques.
Name of the conference: EngOpt 08
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: Rio de Janeiro (BRASIL), Brazil
Date of event: 01/06/2008
End date: 05/06/2008
Organising entity: COPPE/UFRJ (BRASIL)
Type of contribution: Scientific paper
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; YVES MOREAU; ANGEL MANUEL RAMOS DEL OLMO. "Design of Code Division Multiple Access Filters Using Global Optimization Techniques.". En: CD-ROM. Proceedings of the Congress EngOpt 2008. pp. 1 - 9. 01/06/2008. Available on-line at: <http://www.engopt.org/08/nukleo/pdfs/0109_engopt_cdma_ivorra_ramos_moham_moreau.pdf>. ISBN 978-85-7650-156-5

30 **Title of the work:** An Hybrid Global Optimization Method for Credit Portfolio Management
Name of the conference: XVII Congreso de Matemática Capricornio (COMCA)
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Copiapo (CHILE), Chile
Date of event: 01/08/2007
End date: 04/08/2007
Organising entity: UNIVERSIDAD DE ATACAMA
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; ANGEL MANUEL RAMOS DEL OLMO.

31 **Title of the work:** A Semi-Deterministic Global Optimization Method for Credit Portfolio Optimization Under Constraints
Name of the conference: Advances in Global Optimization: Methods and Applications
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - invited/keynote talk **Reasons for participation:** Upon invitation
City of event: Myconos (GRECIA), Greece
Date of event: 13/06/2007
End date: 17/06/2007
Organising entity: CENTER FOR APPLIED OPTIMIZATION - UNIVERSITY OF FLORIDA
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; ANGEL MANUEL RAMOS DEL OLMO.

32 **Title of the work:** A Semi-Deterministic Global Optimization Method for Credit Portfolio Optimization Under Constraints
Name of the conference: Workshop on Non-smooth Analysis and Applications
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: MADRID, Spain
Date of event: 07/02/2007
End date: 09/02/2007
Organising entity: INSTITUTO MATEMATICO INTERDISCIPLINAR - UNIVERSIDAD COMPLUTENSE DE MADRID
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; ANGEL MANUEL RAMOS DEL OLMO.

33 **Title of the work:** Global Optimization Method for Credit Portfolio Management
Name of the conference: Doctiss 2006
Type of event: Workshop **Geographical area:** Regional

Type of participation: 'Participatory - poster
City of event: Montpellier (FRANCIA), France
Date of event: 01/06/2006
End date: 01/06/2006
Organising entity: ECOLE DOCTORALE I2S - Université de Montpellier 2
City organizing entity: France
Benjamin Ivorra; Stébastien Delcourt; Rim Theraoui; Guillaume Quibel; Bijan Mohammadi.

34 **Title of the work:** Shape optimization on Femlab Platform
Name of the conference: COMSOL Multiphysics Conference 2005
Type of event: Workshop **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: Paris (FRANCIA), France
Date of event: 15/10/2005
End date: 15/10/2005
Organising entity: COMSOL Group
Type of contribution: Scientific paper
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; DAMIEN ISEBE. "Shape optimization on Femlab Platform". En: Proceeding of COMSOL Multiphysics Conference 2005 Paris. pp. 329 - 333.

35 **Title of the work:** Design of Fast Microfluidic Protein Folding Devices by a S.D. Global Optimization Algorithm
Name of the conference: 17éme Congrès Français de Mécanique
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Troyes (FRANCIA), France
Date of event: 29/08/2005
End date: 02/09/2005
Organising entity: ASSOCIATION FRANÇAISE DE MECANIQUE
BENJAMIN PIERRE PAUL IVORRA; DAVID HERTZOG; JUAN SANTIAGO; BIJAN MOHAMMADI.

36 **Title of the work:** A new semi-deterministic global optimization method for multichannel optical filters and fast microfluidic protein folding devices design.
Name of the conference: ENUMATH 2005
Type of event: Conference **Geographical area:** European Union
Type of participation: Participatory - oral communication
City of event: SANTIAGO, Spain
Date of event: 18/07/2005
End date: 22/07/2005
Organising entity: Universidad de Santiago de Compostela **Type of entity:** University
With external admission assessment committee: Yes
Type of contribution: Book chapter
BENJAMIN PIERRE PAUL IVORRA; DAVID E. HERTZOG; JUAN G. SANTIAGO; YVES MOREAU; BIJAN MOHAMMADI. "A new semi-deterministic global optimization method for multichannel optical filters and fast microfluidic protein folding devices design.". En: Numerical Mathematics and Advanced applications. 2, pp. 1007 - 1014. Springer Science, ISBN 3-540-34287-7

37 **Title of the work:** Quantifying Uncertainties in Seismic Tomography
Name of the conference: SIAM Conference on Mathematical and Computational Issues in the Geosciences
Type of event: Conference **Geographical area:** Non EU International

Type of participation: Participatory - oral communication
City of event: Avignon (FRANCIA), France
Date of event: 07/06/2005
End date: 10/06/2005
Organising entity: SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS **Type of entity:** Associations and Groups
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI; CAROLE DUFFET; MICHEL CUER.

38 **Title of the work:** Low-cost global optimization approaches for microfluidic protein folding devices design
Name of the conference: 2ème Congrès National de Mathématiques Appliquées et Industrielles
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Evian (FRANCIA), France
Date of event: 23/05/2005
End date: 27/05/2005
Organising entity: SOCIETE DE MATHEMATIQUES APPLIQUEES ET INDUSTRIELLES **Type of entity:** Associations and Groups
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI.

39 **Title of the work:** Optimisation globale à complexité réduite. Application à divers problèmes.
Name of the conference: 7ème Colloque National En Calcul Des Structures
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Giens (FRANCIA), France
Date of event: 17/05/2005
End date: 20/05/2005
Organising entity: ASSOCIATION CALCUL DES STRUCTURES ET MODELISATION
With external admission assessment committee: Yes
Type of contribution: Scientific paper
BENJAMIN PIERRE PAUL IVORRA; DAMIEN ISEBE; BIJAN MOHAMMADI. "Optimisation globale à complexité réduite. Application à divers problèmes.". En: Calcul Des Structures. 2, pp. 241 - 246. Hermès-Lavoisier, ISBN 2-7462-1140-8

40 **Title of the work:** Apodisation de fibres à réseaux de Bragg pour la synthèse de codes CDMA spectral.
Name of the conference: Workshop: COMMUNICATIONS OPTIQUES ET SYSTEMES TOUT OPTIQUE 04
Type of event: Workshop **Geographical area:** National
Type of participation: Participatory - oral communication
City of event: Paris, France
Date of event: 05/12/2004
End date: 05/12/2004
Organising entity: ECOLE NATIONALE SUPERIEURE DES TELECOMMUNICATIONS
BENJAMIN PIERRE PAUL IVORRA; GUILLAUME PILLE; YVES MOREAU; BIJAN MOHAMMADI; OLIVIER DURAND; LAURENT DUMAS.

41 **Title of the work:** A semi-deterministic optimization method: multi-level shooting algorithm. Application to different industrial cases: optical device, combustion, microfluidic mixer
Name of the conference: 12 French-German-Spanish Conference on optimization
Type of event: Conference **Geographical area:** European Union
Type of participation: 'Participatory - poster
City of event: Avignon, France

Date of event: 20/09/2004
End date: 24/09/2004
Organising entity: UNIVERSITE D'AVIGNON ET DES PAYS DE VAUCLUSE **Type of entity:** University
BENJAMIN PIERRE PAUL IVORRA; BIJAN MOHAMMADI.

Works submitted to national or international seminars, workshops and/or courses

1 **Title of the work:** Modelización con EDPs y simulación numérica para el análisis de riesgo de derrames de petróleo
Name of the event: Las matemáticas vector estratégico de progreso económico
City of event: Madrid, Spain
Date of event: 23/05/2019
End date: 23/05/2019
Organising entity: Red Estratégica de Matemáticas

2 **Title of the work:** Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea. Validation Considering the Prestige and Oleg Naydenov Oil Spill Cases
Name of the event: Séminaires LJK-modèles et algorithmes déterministes: EDP-MOISE
Type of event: Seminar
Corresponding author: Yes **Reasons for participation:** Upon invitation
City of event: Grenoble, France
Date of event: 07/04/2016
Organising entity: Laboratoire Jean Kuntzmann
Benjamin IVorra.

3 **Title of the work:** Interacciones entre COMSOL Multiphysics y Matlab
Name of the event: Primera Jornada en "Modelización y Optimización con COMSOL MULTIPHYSICS"
Type of event: Course
Corresponding author: Yes **Reasons for participation:** Speaker
Geographical area: National
City of event: Madrid, Spain
Date of event: 05/02/2016
End date: 05/02/2016
Organising entity: Universidad Complutense de Madrid **Type of entity:** University
Ivorra Benjamin.

4 **Title of the work:** Be-CoDiS: A mathematical model to predict the risk of human diseases spread between countries. Validation and application to the 2014-15 Ebola Virus Disease epidemic.
Name of the event: Seminario del grupo de Optimización del Centro de Modelamiento Matemático
Type of event: Seminar
Date of event: 22/07/2015
Organising entity: Universidad de Chile

5 **Title of the work:** Simulación numérica en Ingeniería y Ciencias con MATLAB + COMSOL Multiphysics
Name of the event: Seminario del Departamento de Física Aplicada II
Type of event: Seminar
City of event: Malaga,
Date of event: 15/05/2015

Organising entity: Universidad de Málaga **Type of entity:** University
City organizing entity: Málaga,
Benjamin Ivorra.

6 **Title of the work:** Be-CoDis y Be-FAST: modelos matemáticos para predecir la expansión de enfermedades humanas y de animales con datos reales
Name of the event: Seminario del Departamento de Matemática Aplicada
Type of event: Seminar
Date of event: 05/11/2014
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

7 **Title of the work:** Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea
Name of the event: Seminario de Optimización y Equilibrio
Type of event: Seminar
Date of event: 30/07/2014
Organising entity: Universidad de Chile **Type of entity:** University
City organizing entity: Santiago de Chile, Chile

8 **Title of the work:** Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea
Name of the event: Seminario de la Facultad de Ingeniería y Ciencias Aplicadas
Type of event: Seminar
Date of event: 27/07/2014
Organising entity: Universidad de los Andes **Type of entity:** University
City organizing entity: Santiago de Chile, Chile

9 **Title of the work:** Modeling, Simulation and Optimization of a Polluted Water Pumping Process in Open Sea
Name of the event: Seminario del Departamento de Matemática Aplicada
Type of event: Seminar
Date of event: 12/02/2014
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

10 **Title of the work:** Be-FAST: A new spatial hybrid model for farm animal disease spread. Application to Classical Swine Fever.
Name of the event: Seminario de Matemática
Type of event: Seminar
Date of event: 02/06/2011
Organising entity: Universidad Técnica Federico Santa María
City organizing entity: Valparaíso, Chile

11 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario del Departamento de Arquitectura de Computadores y Electrónica
Type of event: Seminar
Date of event: 16/09/2010
Organising entity: Universidad de Almería **Type of entity:** University
City organizing entity: Almería, Spain

12 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario de la Facultad de Ingeniería y Ciencias Aplicadas
Type of event: Seminar
Date of event: 12/05/2010
Organising entity: Universidad de los Andes **Type of entity:** University
City organizing entity: Santiago de Chile, Chile

13 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario de Matemática
Type of event: Seminar
Date of event: 29/04/2010
Organising entity: Universidad Técnica Federico Santa María
City organizing entity: Valparaíso, Chile

14 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario del equipo MERE
Type of event: Seminar
Date of event: 24/03/2010
Organising entity: Institut scientifique de recherche agronomique de Montpellier
City organizing entity: Montpellier, France

15 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario ACSIOM
Type of event: Seminar
Date of event: 23/03/2010
Organising entity: Université de Montpellier 2
City organizing entity: Montpellier, France

16 **Title of the work:** An Hybrid Optimization Method For Credit Portfolio Management
Name of the event: Seminario del Departamento de Estadística e Investigación Operativa I
Type of event: Seminar
Date of event: 14/05/2009
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

17 **Title of the work:** On the modelling and simulation of high pressure processes and inactivtion of enzymes in food engineering
Name of the event: Seminario de Optimización y Equilibrio
Type of event: Seminar
Date of event: 21/01/2009
Organising entity: Universidad de Chile **Type of entity:** University
City organizing entity: Santiago de Chile, Chile

18 **Title of the work:** An Hybrid Optimization Method For Credit Portfolio Management
Name of the event: Seminario del Instituto de Investigaciones en Matemáticas Aplicadas
Type of event: Seminar
Date of event: 21/09/2008

Organising entity: Universidad Nacional Autónoma de México
City organizing entity: México, Mexico

19 **Title of the work:** A new spatial hybrid model for farm animal disease spread. Application to Classical Swine Fever
Name of the event: Seminario de Optimización y Equilibrio
Type of event: Seminar
Date of event: 14/05/2008
Organising entity: Universidad de Chile
City organizing entity: Santiago de Chile, Chile

20 **Title of the work:** An Hybrid Optimization Method for Risk Measure Reduction of a Credit Portfolio
Name of the event: Seminario de la Facultad de Ingeniería y Ciencias Aplicadas
Type of event: Seminar
Date of event: 06/09/2007
Organising entity: Universidad de los Andes **Type of entity:** University
City organizing entity: Santiago de Chile, Chile

21 **Title of the work:** An Hybrid Optimization Method for Credit Portfolio Management
Name of the event: Seminario de Optimización y Equilibrio
Type of event: Seminar
Date of event: 29/08/2007
Organising entity: Universidad de Chile
City organizing entity: Santiago de Chile, Chile

22 **Title of the work:** Modelización, evaluación y optimización de un producto derivado de crédito
Name of the event: Seminario del Departamento de Matemática Aplicada
Type of event: Seminar
Date of event: 05/03/2007
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

23 **Title of the work:** An Hybrid Optimization Method for the Management of a Credit Portfolio under Constraints
Name of the event: Seminario de "Analyse Appliquée"
Type of event: Seminar
Date of event: 16/01/2007
Organising entity: Laboratoire d'Analyse, Topologie, Probabilités **Type of entity:** University
City organizing entity: Marseille, France

24 **Title of the work:** An Hybrid Optimization Method for the Management of a Credit Portfolio under Constraints
Name of the event: Seminario de "Méthodes stochastiques en finances"
Type of event: Seminar
Date of event: 16/06/2006
Organising entity: École nationale des ponts et chaussées
City organizing entity: Paris, France

25 **Title of the work:** Low-cost global optimization approaches. Application to industrials problems
Name of the event: Seminario del Departamento de Matemática Aplicada
Type of event: Seminar
Date of event: 09/05/2006
Organising entity: Universidad Complutense de Madrid **Type of entity:** University

26 **Title of the work:** An Hybrid Optimization Method for the Management of a Credit Portfolio under Constraints
Name of the event: Seminario ACSIOM
Type of event: Seminar
Date of event: 04/04/2006
Organising entity: Université de Montpellier 2
City organizing entity: Montpellier, France

27 **Title of the work:** Low-cost global optimization approaches. Application to industrials problems
Name of the event: Seminario del departamento de "Mathématiques Appliquées"
Type of event: Seminar
Date of event: 23/06/2005
Organising entity: Institut Français du Pétrole
City organizing entity: Paris, France

28 **Title of the work:** Une méthode d´optimisation semi-déterministe
Name of the event: Seminario ACSIOM
Type of event: Seminar
Date of event: 28/09/2004
Organising entity: Université de Montpellier 2
City organizing entity: Montpellier, Languedoc-Roussillon, France

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

Committee title: Comisión de Investigación de la Facultad de C.C. Matemáticas
Affiliation entity: Universidad Complutense de Madrid **Type of entity:** University
Start-End date: 01/05/2011 - 01/09/2013

Organization of R&D activities

1 **Title of the activity:** Congreso Internacional: EngOpt 2018
Type of activity: Comité Científico **Geographical area:** Non EU International
Convening entity: Instituto Superior Técnico
City convening entity: Lisboa, Portugal
Start-End date: 17/09/2018 - 19/09/2018

2 **Title of the activity:** Primera Jornada en "Modelización y Optimización con COMSOL MULTIPHYSICS"
Type of activity: Comité Organizador
Geographical area: National
Convening entity: Universidad Complutense de Madrid
Type of entity: University
Type of participation: Organiser
Nº assistants: 30
Start-End date: 05/02/2016 - 05/02/2016

3 **Title of the activity:** Iberian COMSOL Multiphysics Conference 2015
Type of activity: Comité Científico
Geographical area: European Union
Convening entity: Universidad de Málaga
Type of entity: University
City convening entity: Malaga, Spain
Start-End date: 11/06/2015 - 11/06/2015

4 **Title of the activity:** II Workshop on Modelling and Simulation of Epidemics
Type of activity: Comité Organizador
Geographical area: European Union
Convening entity: Universidad Complutense de Madrid
Type of entity: University
Start-End date: 26/05/2015 - 26/05/2015

5 **Title of the activity:** Workshop on Modelling and Simulation of Epidemics
Type of activity: Comité Organizador
Geographical area: European Union
Convening entity: Universidad Complutense de Madrid
Type of entity: University
Start-End date: 06/05/2011 - 06/05/2011

6 **Title of the activity:** Congreso Internacional: EngOpt 2010
Type of activity: Comité Científico
Geographical area: Non EU International
Convening entity: Instituto Superior Técnico
City convening entity: Lisboa, Portugal
Start-End date: 06/09/2010 - 09/09/2010

7 **Title of the activity:** Workshop on Modelization and Simulation in Agro Food Technologies
Type of activity: Comité Organizador
Geographical area: National
Convening entity: Universidad Complutense de Madrid
Type of entity: University
Start-End date: 24/11/2006 - 24/11/2006

8 **Title of the activity:** 13ème édition de la journée des doctorants de l'école doctorale I2S
Type of activity: Comité Científico
Geographical area: Regional
Convening entity: Université de Montpellier 2
City convening entity: Montpellier, Languedoc-Roussillon, France
Start-End date: 09/03/2005 - 09/03/2005

9 **Title of the activity:** 12ème édition de la journée des doctorants de l'école doctorale I2S
Type of activity: Comité Científico
Geographical area: Regional
Convening entity: Université de Montpellier 2
City convening entity: Montpellier, Languedoc-Roussillon, France
Start-End date: 02/03/2004 - 02/03/2004

R&D management

1 **Name of the activity:** Proyecto PID2019-106337GB-I00: "Modelización, simulación numérica y optimización para varios problemas de interés general"
Type of management: Management of R&D&I actions and projects
Performed tasks: Investigador Principal del Proyecto
Entity: Universidad Complutense de Madrid **Type of entity:** University
Start date: 01/01/2020 **Duration:** 4 years

2 **Name of the activity:** Proyecto MTM2015-64865-P: "Modelización matemática en varios temas de interés para la sociedad"
Type of management: Management of R&D&I actions and projects
Performed tasks: Investigador Principal del Proyecto
Entity: Universidad Complutense de Madrid **Type of entity:** University
Start date: 01/01/2016 **Duration:** 4 years

3 **Name of the activity:** Proyecto I-MATH (CONS-C6-0356): "Un modelo matemático híbrido para la difusión de enfermedades animales y su impacto económico"
Type of management: Management of R&D&I actions and projects
Performed tasks: Investigador Principal del Proyecto
Entity: Universidad Complutense de Madrid **Type of entity:** University
Start date: 01/10/2010 **Duration:** 1 year

Evaluation and revision of R&D projects and articles

1 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: Scientific Reports
Type of activity: Review of articles in scientific or technological journals
Start-End date: 2020 - 2021

2 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: Physics of Fluids
Type of activity: Review of articles in scientific or technological journals
Start-End date: 2017 - 2019

3 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: Engineering Optimization
Type of activity: Review of articles in scientific or technological journals
Start-End date: 2017 - 2018

4 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos para el programa Argentino "CONVOCATORIAS PICT 2013"
Entity where activity was carried out: FONCyT- Agencia Nacional de Promoción Científica y Tecnológica - Ministerio de Ciencia, Tecnología e Innovación Productiva

City of entity: Argentina
Start-End date: 01/12/2013 - 01/02/2014

5 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos para el programa chileno "tercer concurso nacional de proyectos de anillos de investigación en ciencia y tecnología y anillos de investigación en ciencia antártica 2009"
Entity where activity was carried out: Comisión Nacional de Investigación Científica y Tecnológica de Chile
City of entity: Santiago de Chile, Chile
Start-End date: 01/02/2009 - 01/06/2009

6 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos
Entity where activity was carried out: Austrian Science Fund (FWF)
City of entity: Austria
Start date: 2023

7 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Egyptian Informatics Journal
Type of activity: Review of articles in scientific or technological journals
Start date: 2022

8 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Mathematical Methods in the Applied Sciences
Type of activity: Review of articles in scientific or technological journals
Start date: 2022

9 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: The Lancet Infectious Diseases
Type of activity: Review of articles in scientific or technological journals
Start date: 2022

10 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: PLOS ONE
Type of activity: Review of articles in scientific or technological journals
Start date: 2022

11 **Name of the activity:** Revisor para AMS-Mathematical Reviews
Performed tasks: Redacción de 14 resumenes de artículos
Entity where activity was carried out: AMS-Mathematical Reviews
City of entity: United States of America
Type of activity: Review of articles in scientific or technological journals
Start date: 2022

12 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Computers & Chemical Engineering
Type of activity: Review of articles in scientific or technological journals
Start date: 2021

13 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: Computational and Applied Mathematics
Type of activity: Review of articles in scientific or technological journals
Start date: 2021

14 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos
Entity where activity was carried out: Austrian Science Fund (FWF)
City of entity: Austria
Start date: 2021

15 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos
Entity where activity was carried out: Medical Research Council (MRC)
City of entity: United Kingdom
Start date: 2021

16 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Antiviral Research
Type of activity: Review of articles in scientific or technological journals
Start date: 2020

17 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Applied Mathematics and Computation
Type of activity: Review of articles in scientific or technological journals
Start date: 2020

18 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Applied Soft Computing
Type of activity: Review of articles in scientific or technological journals
Start date: 2020

19 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Communications in Nonlinear Science and Numerical Simulation
Type of activity: Review of articles in scientific or technological journals
Start date: 2020

20 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Journal of Clinical Medicine

Type of activity: Review of articles in scientific or technological journals
Start date: 2020

21 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Open Mathematics
Type of activity: Review of articles in scientific or technological journals
Start date: 2020

22 **Name of the activity:** Evaluación de proyectos
Performed tasks: Evaluador internacional experto de proyectos
Entity where activity was carried out: Kuwait Foundation for the Advancement of Sciences (KFAS)
City of entity: Kuwait
Start date: 2020

23 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Journal of Process Control
Type of activity: Review of articles in scientific or technological journals
Start date: 2018

24 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Physica A: Statistical Mechanics and Its Applications
Type of activity: Review of articles in scientific or technological journals
Start date: 2018

25 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Applied Sciences
Type of activity: Review of articles in scientific or technological journals
Start date: 2017

26 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Engineering Structures
Type of activity: Review of articles in scientific or technological journals
Start date: 2016

27 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Mechanics Based Design of Structures and Machines, An International Journal
Type of activity: Review of articles in scientific or technological journals
Start date: 2015

28 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Iranian Journal of Mathematical Sciences and Informatics
Type of activity: Review of articles in scientific or technological journals
Start date: 2014

29 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Computational and Applied Mathematics
Type of activity: Review of articles in scientific or technological journals
Start date: 2013

30 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Journal of Computation and Mathematics
Type of activity: Review of articles in scientific or technological journals
Start date: 2013

31 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 5 artículos evaluados
Entity where activity was carried out: The Scientific World Journal
Start date: 2013

32 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 2 artículos evaluados
Entity where activity was carried out: Annals of Operations Research
Type of activity: Review of articles in scientific or technological journals
Start date: 2011

33 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: International Journal of Chemical Reactor Engineering
Type of activity: Review of articles in scientific or technological journals
Start date: 2010

34 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Mathematical Programming
Type of activity: Review of articles in scientific or technological journals
Start date: 2009

35 **Name of the activity:** Evaluador de artículos para revistas internacionales
Performed tasks: 1 artículo evaluado
Entity where activity was carried out: Journal of Scientific Computing
Type of activity: Review of articles in scientific or technological journals
Start date: 2009

Other achievements

Stays in public or private R&D centres

1 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 10/07/2023 - 22/07/2023 **Duration:** 14 days
Funding entity: Universidad de los Andes
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de modelos de clasifiación

2 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 10/07/2013 - 22/07/2023 **Duration:** 14 days
Funding entity: Universidad de los Andes
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de modelos en optimización topológica

3 **Entity:** Universidad de Almería **Type of entity:** University
Faculty, institute or centre: Departamento de informática
Start-End date: 25/02/2019 - 27/02/2019
Goals of the stay: Guest
Provable tasks: Investigación

4 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 17/07/2017 - 30/07/2017 **Duration:** 14 days
Funding entity: Universidad de los Andes
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de modelos en optimización topológica

5 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 16/07/2016 - 29/07/2016 **Duration:** 14 days
Funding entity: Universidad de los Andes
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de modelos en optimización topológica

6 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 20/07/2015 - 01/08/2015 **Duration:** 11 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de modelos en optimización topológica

7 **Entity:** Universidad de Almería **Type of entity:** University
Faculty, institute or centre: Departamento de informática
Start-End date: 12/05/2015 - 14/05/2015
Goals of the stay: Guest
Provable tasks: Investigación

8 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 21/07/2014 - 02/08/2014 **Duration:** 13 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Estudio de problemas típicos en optimización topológica

9 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 21/04/2013 - 04/05/2013 **Duration:** 14 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Desarrollo de métodos numéricos para resolver problemas en optimización topológica

10 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicadas
City of entity: Santiago de Chile, Chile
Start-End date: 14/07/2012 - 29/07/2012 **Duration:** 16 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Optimización topológica considerando cargas aleatorias

11 **Entity:** Institut national de la recherche agronomique (INRA) de Montpellier
Faculty, institute or centre: UMR Mistea
City of entity: Montpellier, France
Start-End date: 23/06/2011 - 05/07/2011 **Duration:** 13 days
Funding entity: INRA - Montpellier

Goals of the stay: Guest
Provable tasks: Modelización de Bioreactores

12 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicada
City of entity: Santiago de Chile, Chile
Start-End date: 23/05/2011 - 04/06/2011 **Duration:** 13 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE)
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Estudio de modelos para la optimización topológica

13 **Entity:** Universidad de Almería **Type of entity:** University
Faculty, institute or centre: Dep. Arquitect. de Computadores y Electrónica
City of entity: Almería, Spain
Start-End date: 15/09/2010 - 22/09/2010 **Duration:** 8 days
Funding entity: Universidad de Almería **Type of entity:** University
Name of programme: AYUDA PARA PROFESORES INVITADOS DEL PLAN PROPIO DE INVESTIGACIÓN DE 2010 DE LA UNIVERSIDAD DE ALMERIA
Goals of the stay: Guest
Provable tasks: Diseño de mezcladores microfluídicos

14 **Entity:** Universidad de los Andes
Faculty, institute or centre: Facultad de Ingeniería y Ciencias Aplicada
City of entity: Santiago de Chile, Chile
Start-End date: 20/04/2010 - 23/05/2010 **Duration:** 1 month - 3 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE)
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Estudio de modelos para la optimización topológica

15 **Entity:** Institut national de la recherche agronomique (INRA) de Montpellier
Faculty, institute or centre: UMR Mistea
City of entity: Montpellier, France
Start-End date: 15/03/2010 - 23/03/2010 **Duration:** 9 days
Funding entity: INRA - Montpellier
Goals of the stay: Guest
Provable tasks: Modelización de bioreactores

16 **Entity:** Centro de Modelamiento Matemático - Universidad de Chile (Chile)
City of entity: Santiago de Chile, Chile
Start-End date: 10/01/2009 - 01/02/2009 **Duration:** 23 days
Funding entity: Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, CHILE) **Type of entity:** State agency
City funding entity: Chile
Goals of the stay: Guest
Provable tasks: Optimización de armaduras simétricas

17 **Entity:** University of Houston y Universidad Nacional Autónoma de México
City of entity: Houston - México D.F., United States of America
Start-End date: 23/08/2008 - 28/09/2008 **Duration:** 1 month - 6 days

Funding entity: Universidad Autónoma de México
City funding entity: Mexico
Name of programme: Ayuda 'INTERCAMBIO'
Goals of the stay: Guest
Provable tasks: Modelización y Optimización de una bomba para el bombeo de contaminante en alta mar

18 **Entity:** Centro de Modelamiento Matemático - Universidad de Chile (Chile)
City of entity: Santiago de Chile, Chile
Start-End date: 24/06/2007 - 10/09/2007 **Duration:** 2 months - 17 days
Funding entity: CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (FRANCIA) - CONICYT (CHILE)
City funding entity: Chile
Name of programme: Beca posdoctoral CNRS-CONICYT
Goals of the stay: Post-doctoral
Provable tasks: Optimización de armaduras multi-cargas

19 **Entity:** Université de Montpellier 2 **Type of entity:** University
Faculty, institute or centre: Instituto de Matemáticas y Modelización de Montpellier
City of entity: Montpellier, France
Start-End date: 01/09/2003 - 30/10/2006 **Duration:** 3 years
Funding entity: MINISTERE DE LA JEUNESSE DE L´EDUCATION NATIONALE ET DE LA RECHERCHE FRANÇAIS
City funding entity: France
Name of programme: Contrato "allocataire de recherche"
Goals of the stay: Doctorate
Provable tasks: Métodos de optimización semi-determinística. Aplicación a problemas industriales

20 **Entity:** BNP-Paribas: Asset management - Paris (Francia)
City of entity: Paris, Île de France, France
Start-End date: 01/10/2005 - 01/04/2006 **Duration:** 6 months
Funding entity: BNP-Paribas **Type of entity:** Business
City funding entity: France
Name of programme: Contrato 'Beca de investigación'
Goals of the stay: Contracted
Provable tasks: Optimización de carteras de créditos con restricciones

21 **Entity:** Universidad Complutense de Madrid **Type of entity:** University
City of entity: Madrid, Spain
Start-End date: 07/04/2003 - 26/07/2003 **Duration:** 3 months - 20 days
Funding entity: MINISTERE DE LA JEUNESSE DE L´EDUCATION NATIONALE ET DE LA RECHERCHE FRANÇAIS
Name of programme: Beca de mérito
Goals of the stay: Doctorate
Provable tasks: Resolución de un problema por punto de la ecuación de Burgers con un algoritmo genético hibrido

Obtained grants and scholarships

1 **Name of the grant:** Ayuda para profesores invitados del plan propio de investigación de 2010 de la Universidad de Almería
Aims: Ayuda para una estancia
Awarding entity: Universidad de Almería **Type of entity:** University
Conferral date: 15/09/2010
End date: 22/09/2010
Entity where activity was carried out: Universidad de Almería

2 **Name of the grant:** Ayuda para profesores invitados
Aims: Ayuda para estancia
Awarding entity: Fondo de Financiamiento de Centros de Excelencia en Investigación
Conferral date: 11/01/2009
End date: 31/01/2009
Entity where activity was carried out: UNIVERSIDAD DE CHILE.
Faculty, institute or centre: CENTRO DE MODELAMIENTO MATEMATICO

3 **Name of the grant:** Ayuda 'INTERCAMBIO'
Aims: Ayuda para una estancia
Awarding entity: Universidad Autónoma de México
Conferral date: 31/08/2008
End date: 22/09/2008
Entity where activity was carried out: Universidad Autónoma de México

4 **Name of the grant:** Beca pos-doctoral CNRS-CONICYT, obtenida por méritos
Aims: Post-doctoral
Awarding entity: Centre National de la Recherche Scientifique (FRANCIA) - CONICYT (CHILE)
Conferral date: 24/06/2007
End date: 10/09/2007
Entity where activity was carried out: Universidad de Chile
Faculty, institute or centre: Centro de Modelamiento Matemático

5 **Name of the grant:** Contrato "Attaché Temporaire d´Enseignement et Recherche" a tiempo parcial en la universidad de Montpellier 2 obtenido por méritos (duración inicial: 12 meses, rechazada a final de octubre para ir de ayudante en la Universidad Complutense de Madrid).
Aims: Post-doctoral
Awarding entity: Ministére de la Jeunesse de l´Education Nationale et de la Recherche Français
Conferral date: 01/09/2006
End date: 31/08/2007
Entity where activity was carried out: UNIVERSITE DE MONTPELLIER II
Faculty, institute or centre: INSTITUT DE MATHEMATIQUES ET MODELISATION DE MONTPELLIER

6 **Name of the grant:** Bolsa de viaje de la Universidad Complutense de Madrid
Aims: Ayuda para ir a congresos
Awarding entity: Universidad Complutense de Madrid **Type of entity:** University
Conferral date: 12/06/2007
End date: 17/06/2007

Entity where activity was carried out: CONFERENCIA "ADVANCES IN GLOBAL OPTIMIZATION"

7 **Name of the grant:** Contrato "allocataire de recherche" (contrato obtenido por mérito - equivalente a una beca FPU española) obtenido por méritos.
Aims: Pre-doctoral
Awarding entity: Ministére de la Jeunesse de l´Education Nationale et de la Recherche Français
Conferral date: 01/10/2003
End date: 31/08/2006
Entity where activity was carried out: Université de Montpellier II
Faculty, institute or centre: Institut de Mathematiques et Modelisation de Montpellier

8 **Name of the grant:** Beca de mérito obtenida durante el estudio del máster en matemáticas (Université de Montpellier 2).
Aims: Pre-doctoral
Awarding entity: Ministére de la Jeunesse de l´Education Nationale et de la Recherche Français
Conferral date: 29/11/2002
End date: 30/07/2003
Entity where activity was carried out: Université de Montpellier II
Faculty, institute or centre: Institut de Mathematiques et Modelisation de Montpellier

Scientific societies and professional associations

Name of the society: Sociedad Española de Matemática Aplicada
Affiliation entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Start date: 01/02/2009

Editorial councils

1 **Name of the editorial council:** Mathematical Problems in Engineering (2020 - JCR Impact Factor: 1.305) - Supervisión de 71 artículos
Affiliation entity: Hindawi Publishing Corporation **Type of entity:** Business
City affiliation entity: New-YorkNew-York, United States of America
Start date: 29/09/2016 **Duration:** 5 years

2 **Name of the editorial council:** Scientific World Journal: Operations Research (2013 - JCR Impact Factor: 1.219)
Affiliation entity: Hindawi Publishing Corporation **Type of entity:** Business
City affiliation entity: New-YorkNew-York, United States of America
Start date: 27/10/2013 **Duration:** 3 years

Prizes, mentions and distinctions

1 **Description:** Premio Investigación Complutense COVID-19
Awarding entity: Consejo Social de la Universidad Complutense de Madrid
City awarding entity: Madrid, Community of Madrid, Spain
Conferral date: 16/06/2021

2 **Description:** Premio de la mejor presentación para el trabajo ‘’Impacto de los cambios climáticos sobre la propagación de enfermedades animales’’
Awarding entity: Comité organizador del IX Congreso de Ciencias Veterinarias y Biomédicas **Type of entity:** Associations and Groups
City awarding entity: Madrid, Community of Madrid, Spain
Conferral date: 24/04/2010

Obtained accreditations/recognitions

1 **Description:** Acreditación nacional Catedrático de Universidad (Área: Ciencias)
Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** ANECA
Date of recognition: 28/10/2021

2 **Description:** Acreditación nacional Profesor Titular de Universidad (Área: Matemática Aplicada)
Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** ANECA
Date of recognition: 18/06/2012

3 **Description:** Acreditación nacional Profesor Contratado Doctor (Área: Matemática Aplicada)
Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** ANECA
Date of recognition: 22/03/2010

4 **Description:** Acreditación nacional Profesor Contratado Doctor (Área: Matemática Aplicada)
Accrediting entity: Agencia de Calidad, Acreditación y Prospectiva de las Universidades de Madrid **Type of entity:** State agency
City accrediting entity: Madrid, Community of Madrid, Spain
Date of recognition: 04/05/2008

5 **Description:** Acreditación nacional Profesor Ayudante Doctor (Área: Matemática Aplicada)
Accrediting entity: Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** ANECA
Date of recognition: 26/03/2008

6 **Description:** Acreditación "Maître de conférences" (Áreas: 'Matemática Aplicada' y 'Mecánica')
Accrediting entity: Conseil National des Universités **Type of entity:** State agency
City accrediting entity: France
Date of recognition: 05/03/2007

Summary of other achievements

1 **Description of the achievement:** Evaluador interno y miembro del tribunal encargado de evaluar 3 Tesis Doctorales
Accrediting entity: Universidad Complutense de Madrid **Type of entity:** University
City accrediting entity: Spain
Conferral date: 2014

2 **Description of the achievement:** Miembro del Tribunal encargado de juzgar la Tesis Doctoral presentada por Jibenja Natthada dirigida por el profesor Bijan Mohammadi
Accrediting entity: Université de Montpellier 2 **Type of entity:** University
City accrediting entity: France
Conferral date: 27/09/2007