

# 8<sup>th</sup> Workshop of Young Researchers in Mathematics

September 22-24, 2014



Universidad Complutense  
de Madrid



## Monday, September 22

9:30 Registration

10:00 Opening

10:30 Christian Peskine (Institut de Mathématique de Jussieu):  
Secants and Tangents.

11:30 Coffee Break

12:00 Ana García Lecuona (Aix-Marseille Université): La conje-  
tura ribbon y los nudos pretzel.

12:40 Álvaro del Pino (UAM): Donaldson techniques in s-  
symplectic foliations.

13:10 Juanjo Madrigal (UCM): The Calabi-Yau Theorem.

13:40 Lunch

15:30 Mariluz García (UAM): Resolution of singularities and Rees  
Algebras.

16:20 Ana Bravo (UAM): Basic objects, resolution and invariants  
of singularities.

17:10 Coffee Break

17:40 Iason Efraimidis (UAM): Zalcman's Conjecture for Univa-  
lent Functions.

18:10 Alberto Criado (UAM): Uniform estimates and a principle  
of differentiation through dimensions.

## Tuesday, September 23

9:30 F. Javier Aragón Artacho (University of Luxembourg): A  
walking tour guided by Pi.

10:30 Andrea Tellini (UCM): The effect of fast diffusion occurring  
on sub-environments of lower spatial dimension.

11:10 Coffee Break

11:40 David Gómez (UCM): Efficiency over cylinders: Steiner  
symmetrization and shape differentiation.

12:10 Víctor Arnaiz (UAM): Local and global analysis for rough  
solutions of nonlinear Schrödinger equations on  $\mathbb{R}^n$ .

12:30 Verónica Hernández (UC3M): Bounds on Gromov hyper-  
bolicity constant.

13:10 Amauris de la Cruz (UC3M): Lexicographic product  
graphs and hyperbolicity in the Gromov sense.

13:40 Lunch

15:30 Carlos Mora (UAM): Mathematical modelling and  
analysis in Solid Mechanics: elasticity, fracture, cavitation.

16:20 María Teresa Pérez (UAM): Limits as  $p$  goes to infinity in  
elliptic problems related to operators of  $p$ -laplacian type.

Overview and recent applications.

17:10 Coffee Break

17:40 Sergio Medina (UC3M): Uniform convergence of Hermite  
-Padé approximants for certain systems of analytics and me-  
romorphic functions.

18:10 Misael Marriaga (UC3M): Classical and semiclassical  
Koonwinder orthogonal polynomials in two variables.

## Wednesday, September 24

9:30 Antonio Viruel (Universidad de Málaga): What is a  
group? Abstract groups vs transformation groups.

10:30 María del Carmen Requera (University of Birmingham):  
Lower bounds for fractional Riesz Transforms on General Can-  
tor sets.

11:10 Coffee Break

11:40 Ana Granados (UC3M): Gromov Hyperbolicity in Mycie-  
lski graphs.

12:20 Óscar Domínguez (UCM): Compactness results of opera-  
tors between approximation spaces.

12:50 Héctor Barge (UCM): Topological aspects of dynamical  
systems.

13:20 Óscar Madiedo (UCM): Global inversion of non-smooth  
mappings.

The Workshop will take place at the room S-106, School of Mathematics, Universidad  
Complutense de Madrid



School of Mathematics  
Universidad Complutense de Madrid  
e-mail: [secreadm.imi@mat.ucm.es](mailto:secreadm.imi@mat.ucm.es)

<http://www.mat.ucm.es/imi/YoungResearchers/>