

## Educational Activities IMEIO- UPM

<b>Title:</b> NEW TOOLS FOR INFERENTIAL METHODS BASED ON EMPIRICAL LIKELIHOOD
<b>Responsible of the activity:</b> Leandro Pardo Llorente
<b>Lecturers:</b> Leandro Pardo Llorente, Angel Felipe Ortega, Pedro Miranda y Nirian Martín
<b>Total number of hours:</b> 15
<b>Location:</b> Department of Statistics and Operational Research-Complutense University of Madrid
<b>Dates:</b> Second half-semester

**Abstract:** The idea of empirical likelihood (also known as non-parametric likelihood) is a recent technic introduced by Owen at the end of the eighties. Many of the results based on this tool and developed during the nineties are recorded in Owen's book published in 2001 (Empirical Likelihood. Chapman & Hall). The reason for its success and development in the last years is the flexibility and capacity of empirical likelihood to include in the likelihood expression any constraints that the model may require. In the last two years, new procedures based on distances have been applied to empirical likelihood. These procedures include as a special case the empirical likelihood ratio test and it can be seen that they present a better behavior in terms of efficiency and robustness than the empirical likelihood ratio test. In the course we also treat the computational problems appearing when dealing with empirical likelihood and the new procedures based on distances.

**Would you accept that the course could be given by videoconference restricted to some doctoral students who could not attend in person? NO**