

# PREFACE

The *International Conference Zaragoza-Pau on Applied Mathematics and Statistics* is organized normally every two years since 1989 by the *Departamento de Matemática Aplicada*, the *Departamento de Métodos Estadísticos*, both from the *Universidad de Zaragoza* (Spain), and the *Laboratoire de Mathématiques Appliquées et leurs Applications*, from the *Université de Pau et des Pays de l'Adour* (France). The aim of this conference is to present recent works in Applied Mathematics and Statistics, putting special emphasis on subjects linked to petroleum engineering and environmental problems.

The Eleventh Conference took place in Jaca (Spain) from 15th to 17th September 2010. The official opening ceremony was graced by the presence of the Chancellor of the University of Zaragoza, Rector Mgfco. D. Manuel J. López Pérez, and the Chancellor of the University of Pau, M. le Président Jean-Louis Gout. During those three days, 87 mathematicians, coming from different universities, research institutes or the industrial sector, attended 13 plenary lectures, 39 contributed talks and a poster session with a total of 10 posters.

This edition had the pleasure of a special event. A mini-symposium in honour of Monique Madaune-Tort, Professor of the *Université de Pau et des Pays de l'Adour*. Monique is one of the pioneers of this conference and several other French-Spanish events in Mathematics. She belongs to the group of French and Spanish researchers who are deeply involved in the academic and scientific cooperation between the *Université de Pau et des Pays de l'Adour* and the *Universidad de Zaragoza*. In this mini-symposium, 11 invited conferences were held.

The principal talks were about theoretical and numerical analysis of deterministic models described by differential equations, statistics and stochastics processes, surface approximation and image analysis. At the same time, there was also a session devoted to Algebra and Geometry. These proceedings contain 1 paper based on the corresponding invited lectures along with 19 full length refereed research papers. In a special volume, 9 papers based on invited lectures given in the mini-symposium, as a special tribute to Monique Madaune-Tort, are published as a *Monografía de la Real Academia de Ciencias de Zaragoza*.

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The next edition of the Conference Zaragoza-Pau will be held in Jaca from 17th to 19th September 2012. All of you are cordially invited to participate in this event.

Pau and Zaragoza, Mars 2012

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