

# PREFACE

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

The Sixteenth Conference took place in Jaca (Spain) from 7th to 9th September 2022. The official opening ceremony was graced by the presence of the Vice-Chancellor for Academic Policy of the University of Zaragoza, D. José Ángel Castellanos Gómez, and Vice-Chancellor of the Research Commission of the University of Pau, Mme. Isabelle Baraille. During those three days, 111 mathematicians, coming from different universities, research institutes or the industrial sector, attended 8 plenary lectures, 69 contributed talks and a poster session with 7 posters. We note that in this edition there were 11 mini-symposia, five of them co-organized by colleagues from the *Universidad de Zaragoza* and the *Université de Pau et des Pays de l'Adour*.

The principal talks were about theoretical and numerical analysis of deterministic models described by partial differential equations, statistics and stochastic processes, surface approximation and image analysis. At the same time, there was also a discussion session about problems in Algebra and Geometry. These proceedings contain 18 refereed research papers.

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The next Conference Zaragoza-Pau will be held in Jaca from 4th to 6th September 2024. All of you are cordially invited to participate in this event.

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