

Foreword

The CEMRACS is an annual summer school initiated in 1996 by Frédéric Coquel and Yvon Maday and promoted by the French Society of Applied and Industrial Mathematics (SMAI). Its goal is to create and reinforce interdisciplinary collaborations between applied mathematicians and scientists of other fields from academia and industry.

The 2008 edition of this event took place from July 21st to August 29th at the CIRM (Centre International de Rencontres Mathématiques, Marseille, France), and was attended by about 120 researchers from 10 different citizenships, including mathematicians, physicists, computer scientists, and research engineers. The organizing committee was composed of L. Boudin (Univ. P.& M. Curie), C. Misbah (CNRS), M. Ismail (Univ. Joseph Fourier), J. B. Apoung Kanga, B. Maury, S. Martin (Univ. Paris-Sud), and T. Takahashi (INRIA Nancy - Grand Est).

CEMRACS '08 was dedicated to the study of complex fluids, including mixtures of fluids and entities (cells, vesicles, rigid grains), with a special emphasis on the role of direct computation and microscopic modelling in understanding the global behaviour of such fluids. The present volume gathers contributions proposed by participants to this 2008 edition, and covers a wide range of topics related to the numerical / physical modeling of complex fluids.

We are very grateful to our colleagues who have proposed and supervised research projects, and we would like to express our gratitude to all the participants who contributed through their involvement to the success of CEMRACS '08.

Bertrand Maury & Mourad Ismail

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