

Numerical Analysis and Scientific Computation with Applications (NASCA13)

The international conference Numerical Analysis and Scientific Computation with Applications (NASCA13) was held at the University of Littoral in Calais, France, June 24–26, 2013. The principal organizers of this conference were M. Bellalij, A. Bouhamidi, K. Jbilou, and H. Sadok. There were more than 130 participants from 20 countries. The plenary lectures were presented by P. Benner, F. Desbouvries, P. Van Dooren, G. Meurant, L. Reichel, and Y. Saad. It was the aim of the conference to bring together researchers working on the conference topics to give them an opportunity to discuss recent advances in their research areas, to provide the possibility for conference participants to exchange ideas, and to facilitate future collaborations. The scientific program covered a wide range of topics with particular focus on:

- Large linear and nonlinear systems of equations, including preconditioning.
- Large eigenvalue problems.
- Domain decomposition methods.
- High-performance and parallel computation.
- Linear algebra, control theory, and model reduction.
- Numerical methods for partial differential equations, including finite element, finite volume, and meshless methods.
- Approximation of functions, with emphasis on radial basis functions, scattered data approximation, and learning theory.
- Optimization methods.
- Applications of the above topics in image processing and others.

This special issue contains selected papers that have been accepted for publication after a refereeing process that meets the standards of the journal *Electronic Transactions on Numerical Analysis*. We express our gratitude to all participants for their contributions and for making the conference a most interesting and pleasant event. We also would like to thank the authors of the papers in this issue, as well as the referees for their valuable work and recommendations.

The guest editors

Khalide Jbilou
Lothar Reichel
Hassane Sadok