

JOURNAL OF NUMERICAL MATHEMATICS

EDITOR-IN-CHIEF

Maxim Olshanskii, Houston, TX

MANAGING EDITOR

Andrea Bonito, College Station, TX

EDITORIAL ADVISORY BOARD

Markus Bachmayr, Mainz

Michele Benzi, Pisa

Susanne Brenner, Baton Rouge, LA

Erik Burman, London

Carsten Carstensen, Berlin

Miloslav Feistauer, Prague

Simon Foucart, College Station, TX

Jean-Luc Guermond, College Station, TX

Johnny Guzman, Providence, RI

Daniel Kressner, Lausanne

Christoph Lehrenfeld, Gottingen

Frédéric Nataf, Paris

Michael Neilan, Pittsburgh, PA

Fabio Nobile, Lausanne

Alfio Quarteroni, Milan

Leo Rebholz, Clemson, SC

Sergey Repin, St. Petersburg

Arnold Reusken, Aachen

Valeria Simoncini, Bologna

Martin Stoll, Chemnitz

Eugene Tyrtshnikov, Moscow

Stefan Volkwein, Konstanz

Shawn Walker, Baton Rouge, LA

Jun Zou, Hong Kong

HONORARY MEMBERS

Pekka Neittaanmäki, Jyväskylä

Olivier Pironneau, Paris

Rolf Rannacher, Heidelberg

DE GRUYTER

JOURNAL OF NUMERICAL MATHEMATICS is a journal devoted to the publication of high quality papers featuring contemporary research in all areas of Numerical Mathematics. This includes the development, analysis and implementation of new and innovative methods in Numerical Linear Algebra, Numerical Analysis, Optimal Control/Optimization, and Scientific Computing. The journal will also publish applications-oriented papers related to problems in engineering, finance, and life sciences.

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/jnum.

Please see the journal's homepage for Abstracting & Indexing Services information.

ISSN 1570-2820 · e-ISSN 1569-3953 · CODEN JNMOAM

RESPONSIBLE EDITOR Maxim Olshanskii, Department of Mathematics, University of Houston, Houston, TX 77204-3008, USA.
E-mail: molshan@math.uh.edu

MANAGING EDITOR Andrea Bonito, Department of Mathematics, Texas A&M University, College Station, TX 77843-3368, USA.
E-mail: bonito@math.tamu.edu

PUBLISHER Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin, Germany

JOURNAL COORDINATOR Susanne Hoeves, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany,
E-mail: susanne.hoeves@degruyterbrill.com

© 2025 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING TNQ Tech Private Limited, Chennai, India

PRINTING Franz X. Stücker Druck und Verlag e.K., Ettenheim, Germany

Questions about General Product Safety Regulation: productsafety@degruyterbrill.com



Contents

Emre Mengi

A subspace framework for $\mathcal{L}_\infty$ model reduction — 211

Matthieu Alfaro and Claire Chainais-Hillairet

Long time behavior of the field–road diffusion model: an entropy method and a finite volume scheme — 241

Yuping Zeng and Shangyou Zhang

A medius error analysis for the conforming discontinuous Galerkin finite element methods — 267

Connor Parrow and Martina Bukač

A Robin–Robin strongly coupled partitioned method for fluid–poroelastic structure interaction — 289