Multiphysics Modeling

Series Editors

Jochen Bundschuh

University of Southern Queensland (USQ), Toowoomba, Australia Royal Institute of Technology (KTH), Stockholm, Sweden

Mario César Suárez Arriaga

Department of Applied Mathematics and Earth Sciences, School of Physics and Mathematical Sciences, Michoacán University UMSNH, Morelia, Michoacán, Mexico

ISSN: 1877-0274

Volume 6

Editorial board of the book series

Chun-Jung Chen

Iouri Balachov Advanced Power Generation, Physical Sciences Division,

SRI International, Menlo Park, CA 94025, USA

E-mail: iouri.balachov@sri.com

Jacob Bear Dept. of Civil and Environmental Eng., Technion,

Israel Inst. of Technology, Haifa 32000, Israel

E-mail: cvrbear@techunix.technion.ac.il

Angelika Bunse-Gerstner Center of Industrial Mathematics, Faculty of

Mathematics and Computer Science, University of Bremen,

Bremen, Germany

E-mail: Bunse-Gerstner@math.uni-bremen.de Chen Life Science Group, Research Division,

National Synchrotron Radiation Research Center, and Department of Physics, National Tsing Hua University, Hsinchu 30076, Taiwan

E-mail: cjchen@nsrrc.org.tw

Alexander H.D. Cheng Department of Civil Engineering, University of

Mississippi, MS 38677-1848 E-mail: acheng@olemiss.edu

Malcolm E. Cox School of Earth, Environment & Biological Sciences (EEBS),

Science & Engineering Faculty (SEF), Queensland University of

Technology (QUT), Brisbane, QLD 4001, Australia

E-mail: m.cox@qut.edu.au

Elad Dafny Faculty of Engineering and Surveying & National Centre of

Engineering and Surveying (NCEA), University of Southern

Queensland, Toowoomba, QLD 4350, Australia

E-mail: elad.dafny@usq.edu.au

Martín A. Díaz Viera Instituto Mexicano del Petróleo (IMP), Mexico City,

Mexico

E-mail: mdiazv@imp.mx

Hans J. Diersch Groundwater Modelling Centre, DHI-WASY GmbH,

12526 Berlin, Germany

E-mail: H.Diersch@dhi-wasy.de

Jesus A. Dominguez ASRC Aerospace Corporation, Kennedy Space Center,

FL, USA

E-mail: jesus.a.dominguez@nasa.gov

Donald Estep Department of Mathematics, Department of Statistics,

Program for Interdisciplinary Mathematics, Ecology, & Statistics; Director, Center for Interdisciplinary Mathematics and Statistics,

Colorado State University, Fort Collins, CO 80523, USA

E-mail: don.estep@gmail.com

Ed Fontes COMSOL, SE-111 40, Stockholm, Sweden

E-mail: ed@comsol.com

Edward Furlani Device Physics and Simulation, OCTO,

Device Science & Technology Research, Fluidics Dept., Eastman Kodak Company,

NY 14650-2216, USA

E-mail: edward.furlani@kodak.com

of Mexico (UNAM), 14000, Mexico D.F., Mexico

E-mail: iherrera@unam.mx

Jim Knox Life Support Systems Development Team,

NASA Marshall Space Flight Center, Huntsville, AL 35812, USA

E-mail: Jim.Knox@nasa.gov

Rafid al Khoury Computational Mechanics, Faculty of Civil Engineering

and Geosciences, Delft University of Technology,

2628 CN Delft, The Netherlands E-mail: R.I.N.alKhoury@tudelft.nl

William Layton Department of Mathematics, University of Pittsburgh,

Pittsburgh, PA 15260, USA E-mail: wjl@math.pitt.edu

Kewen Li Stanford University, Department of Energy

Resources Engineering, Stanford, CA 94305-2220, USA

E-mail: kewenli@stanford.edu

Jen-Fin Lin Center for Micro/Nano Science and Technology,

National Cheng Kung University, Tainan, Taiwan

E-mail: jflin@mail.ncku.edu.tw

Rainald Löhner School of Computational Sciences,

George Mason University, MS 6A2, USA

E-mail: rlohner@gmu.edu

Emily Nelson Bio Science and Technology Branch, NASA Glenn

Research Center, Cleveland, OH 44135, USA

E-mail: emily.s.nelson@nasa.gov

Enrico Nobile Department of Naval Architecture,

Ocean and Environmental Engineering (DINMA),

University of Trieste, Trieste, Italy

E-mail: nobile@units.it

Jennifer Ryan Delft Institute of Applied Mathematics,

Delft University of Technology, 2628 CD Delft, The Netherlands E-mail: j.k.ryan@tudelft.nl

Rosalind Sadleir Department of Biomedical Engineering,

University of Florida, Gainesville, FL 32611-6131, USA

E-mail: rsadleir@bme.ufl.edu

Fernando Samaniego V. Faculty of Engineering, National University

of Mexico (UNAM), 14000, Mexico City, Mexico

E-mail: fsamaniegov@pep.pemex.com

Peter Schätzl Groundwater Modelling Centre, DHI-WASY GmbH,

12526 Berlin, Germany

E-mail: p.schaetzl@dhi-wasy.de

Xinpu Shen Halliburton Consulting and Project Management,

Houston, TX 77042-3021, USA E-mail: xinpushen@yahoo.com

Craig T. Simmons National Centre for Groundwater Research and Training &

School of the Environment, Flinders University, Adelaide, SA 5001,

Australia

E-mail: craig.simmons@flinders.edu.au

Yury Stepanyants Department of Mathematics and Computing, Faculty of Sciences,

University of Southern Queensland, Toowoomba, QLD 4350,

Australia

E-mail: yury.stepanyants@usq.edu.au

Dmitry Strunin Department of Mathematics and Computing, Faculty of Sciences,

University of Southern Queensland, Toowoomba, QLD 4350,

Australia

E-mail: strunin@usq.edu.au

Roger Thunvik Dept. Land & Water Resources Engineering,

Royal Institute of Technology (KTH), SE-100 44

Stockholm, Sweden E-mail: roger@kth.se

Thanh Tran-Cong Faculty of Engineering and Surveying & Computational

Engineering and Science Research Centre (CESRC),

University of Southern Queensland, Toowoomba, QLD 4350,

Australia

E-mail: thanh.tran-cong@usq.edu.au

Clifford I. Voss U.S. Geological Survey, Reston, VA 20192, USA

E-mail: cvoss@usgs.gov

Thomas Westermann Karlsruhe University of Applied Sciences,

76133 Karlsruhe, Germany

E-mail: thomas.westermann@hs-karlsruhe.de

Leif Wolf CSIRO Land & Water, Dutton Park, QLD 4102, Australia

E-mail: leif.wolf@csiro.au

Michael Zilberbrand Hydrological Service of Israel, Jerusalem 91360, Israel

E-mail: michaelz20@water.gov.il