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Short CV - mainly system generated

For more details and especially also links to download most of the publications, see http://www.imada.sdu.dk/~debrabant/index_en.php.

Professional Experience

2011 - present	Associate Professor at the Department of Mathematics and Computer Science (IMADA) at University of Southern Denmark
2011	Interim professor for Applied Mathematics and Computer Science of the School of Business Informatics and Mathematics at University of Mannheim, Germany
2010 - 2011	Postdoctoral research fellow at the Scientific Computing Research Group of the Department of Computer Science at Katholieke Universiteit Leuven, Belgium
2002 - 2011	Research associate at the Department of Mathematics at Technische Universität Darmstadt, Research Group Numerical Analysis and Scientific Computing (since March 2010 on academic leave)

Education

2010	Habilitation by the Department of Mathematics of TU Darmstadt
15.10.2004	Award of a doctorate Dr. rer. nat.
2002 - 2004	PhD study in the research group Numerical Analysis and Scientific Computing of the Technische Universität Darmstadt, Germany
2000 - 2002	PhD study at the Institute for Numerical Mathematics of the Martin-Luther-University of Halle-Wittenberg, Germany
2001	Diploma in Physics
2000	Diploma in Mathematics
1999	Vordiplom (Bachelor) in computer sciences
1994 - 2001	Study at the Martin-Luther-University of Halle-Wittenberg, Germany

Publications (if you would like to download a publication, please see http://www.imada.sdu.dk/~debrabant/publik_en.php)

Exponential Euler method for stiff stochastic differential equations with additive fractional Brownian noise
Kamrani, M., Debrabant, K. & Jamshidi, N., 2024, I: International Journal of Computer Mathematics. 101, 3, s. 357-371

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Debrabant, K., Kværnø, A. & Mattsson, N. C., 2022, I: BIT Numerical Mathematics. 62, s. 1121–1147

The Cost-Effectiveness of a COVID-19 Vaccine in a Danish Context
Debrabant, K., Grønbæk, L. & Kronborg, C., nov. 2021, I: Clinical Drug Investigation. 41, 11, s. 975-988

Backward Differentiation Formula finite difference schemes for diffusion equations with an obstacle term
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Cohen, D., Debrabant, K. & Rößler, A., dec. 2020, I: Applied Numerical Mathematics. 158, s. 264-270

Study of micro-macro acceleration schemes for linear slow-fast stochastic differential equations with additive noise
Debrabant, K., Samaey, G. & Zieliński, P., 2020, I: BIT Numerical Mathematics. 60, s. 959–998

Weak antithetic MLMC estimation of SDEs with the Milstein scheme for low-dimensional Wiener processes
Debrabant, K., Ghasemifard, A. & Mattsson, N. C., maj 2019, I: Applied Mathematics Letters. 91, s. 22-27 6 s.

Parametric model reduction via interpolating orthonormal bases
Zimmermann, R. & Debrabant, K., 5. jan. 2019, *Numerical Mathematics and Advanced Applications: ENUMATH 2017.* Radu, F. A., Kumar, K., Berre, I., Nordbotten, J. M. & Pop, I. S. (red.). Springer, s. 683-691 (Lecture Notes in Computational Science and Engineering, Bind 126).

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Arara, A. A., Debrabant, K. & Kværnø, A., 5. jan. 2019, *Numerical Mathematics and Advanced Applications: ENUMATH 2017.* Radu, F. A., Kumar, K., Berre, I., Nordbotten, J. M. & Pop, I. S. (red.). Springer, s. 419-427 (Lecture Notes in Computational Science and Engineering, Bind 126).

Analysis of multilevel Monte Carlo path simulation using the Milstein discretisation
Giles, M., Debrabant, K. & Rößler, A., 2019, I: Discrete and Continuous Dynamical Systems - Series B. 24, 8, s. 3881-3903

Carbon oxidation and bioirrigation in sediments along a Skagerrak−Kattegat−Belt Sea depth transect
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Cheap arbitrary high order methods for single integrand SDEs
Debrabant, K. & Kværnø, A., 2017, I: BIT Numerical Mathematics. 57, 1, s. 153-168

Robust optimization of robotic pick and place operations for deformable objects through simulation
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Semi-Lagrangian schemes for parabolic equations
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B-series analysis of iterated Taylor methods
Debrabant, K. & Kværnø, A., 2011, I: BIT Numerical Mathematics. 51, 3, s. 529-553 25 s.

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On quasi-linear PDAEs with convection: applications, indices, numerical solution
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