

Curriculum Vitae for Peter Mathé

Contact Information

Office: Weierstrass Institute for Applied Analysis and Stochastics, Mohrenstraße 39,
10117 Berlin, Germany
Phone: (030) 20372550, Fax: (030) 2044975
Email: mathe@wias-berlin.de,
Home: Arnsberger Straße 54 A, 12683 Berlin
Phone: (030) 51739748,

Personal Information

Born June 20, Wittenberge, Germany
Married to Angelika Mathé
Children: Anne & Julia

Current Research Areas

Numerical analysis, with emphasis on ill-posed problems
Monte Carlo Simulation
Markov Chain Monte Carlo methods

Education

PhD in mathematics, University of Jena, Germany, 1982
Habilitation, Free University Berlin, 1994

Employment History

1990–present	Researcher at Weierstrass Institute
1987–1989	Researcher at Karl–Weierstrass-Institute
1983–1987	Scientific Assistant at University of Jena
1982–1983	postdoc Studies at Moscow State University
1979–1982	Research Studies at Jena University

Recent Relevant Publications

- [1] Peter Mathé, *Asymptotic constants for multivariate Bernstein polynomials*, To appear 2003.
- [2] Peter Mathé and Gang Wei, *Quasi-Monte Carlo integration over \mathbb{R}^d* , To appear, 2003.
- [3] Peter Mathé and Sergei V. Pereverzev, *Optimal error of ill-posed problems in variable Hilbert scales under the presence of white noise*, In preparation, 2003.
- [4] ———, *Geometry of ill-posed problems in variable Hilbert scales*, Submitted, 2003.
- [5] ———, *Discretization strategy for ill-posed problems in variable Hilbert scales*, Manuscript, 2003.
- [6] Peter Mathé, *Saturation of regularization methods in Hilbert spaces*, Submitted, 2003.
- [7] Peter Mathé and Sergei V. Pereverzev, *Stable summation of orthogonal series with noisy coefficients*, J. Approx. Theory **118** (2002), no. 1, 66–80.
- [8] ———, *Moduli of continuity for operator valued functions*, Numer. Funct. Anal. Optim. **23** (2002), no. 5-6, 623–631.
- [9] ———, *Direct estimation of linear functionals from indirect noisy observations*, J. Complexity **18** (2002), no. 2, 500–516.
- [10] Peter Mathé, *Numerical integration using V -uniformly ergodic Markov chains*, submitted, 2002.
- [11] Peter Mathé and Sergei V. Pereverzev, *Optimal discretization of inverse problems in Hilbert scales. Regularization and self-regularization of projection methods*, SIAM J. Numer. Anal. **38** (2001), no. 6, 1999–2021.
- [12] Peter Mathé, *Hilbert space analysis of Latin hypercube sampling*, Proc. Amer. Math. Soc. **129** (2001), no. 5, 1477–1492.
- [13] Peter Mathé and Sergei V. Pereverzev, *Optimal discretization and degrees of ill-posedness for inverse estimation in Hilbert scales in the presence of random noise*, preprint WIAS, January 1999.
- [14] Peter Mathé, *Numerical integration using Markov chains*, Monte Carlo Methods Appl. **5** (1999), no. 4, 325–343.
- [15] ———, *Approximation of Hölder continuous functions by Bernstein polynomials*, Amer. Math. Monthly **106** (1999), no. 6, 568–574.