Offizielle Partnerschaften des Instituts für Mathematik

Bilaterale Forschungskooperation *(länderweise, ab 2011)*

Algerien

Université des Sciences et Technologies Houari Boumediene, Faculté des Mathématiques, Lehrstuhl *Angewandte Mathematik*

Armenien

Universität Jerevan, Department of Mathematics, DFG und DAAD Projekte, Lehrstuhl *Partielle Differentialgleichungen*

Australien

University of Sydney, Department of Mathematics, Lehrstuhl *Numerische Mathematik*

Brasilien

Universidade Estadual de Campinas, São Paulo, Internationales Graduiertenkolleg *Dynamical Phenomen in Complex Networks: Conceptual Climate Models*, 2012-2016 Lehrstuhl *Wahrscheinlichkeitstheorie*

Bulgarien

South-West Univerity, Blagoevgrad,Department of Mathematics, DFG-Projekt, Lehrstuhl *Allgemeine Algebra und Diskrete Mathematik*

China

Universität Tianjin & Universität Wuhan, DFG-Projekt *Analysis of Partial Differential Equations and Applications*, Lehrstuhl *Partielle Differentialgleichungen*

Frankreich

Université Pierre et Marie Curie, Paris, Laboratoire de Probabilités et Modèles Aléatoires, DAAD PROCOPE-Projekt *Adaptive multiple Testverfahren in hohen Dimensionen*, 2010-2011, Lehrstuhl *Mathematische Statistik*

Université Paris Ouest-Nanterre, Deutsch-Französisches Doktorandenkolleg *Applications of stochastic processes,* 2006-2011*,* Lehrstühle *Wahrscheinlichkeitstheorie* und *Semiklassik und Asymptotik*

Université Lille 1, Laboratoire de Mathématiques Paul Painlevé, DAAD PROCOPE-Projekt *Strukturanalyse zufälliger Geometrie in Raum und Zeit*, 2012-2013, Lehrstuhl *Wahrscheinlichkeitstheorie*

Institut de Physique du Globe de Paris*,* Unité de Géomagnétisme
Université de Toulon, Centre de Physique Théorique,
Université de Rennes 1, Géosciences, Lehrstuhl *Angewandte Mathematik*

Irland

National University of Ireland Maynooth, Hamilton Institute, Lehrstuhl *Mathematische Modellierung und Systembiologie*

Italien

Università degli Studi di Messina & Università Mediterranea di Reggio Calabria, Matematica, Lehrstuhl *Angewandte Mathematik*

Kanada

University of British Columbia, Vancouver, Department of Computer Science, Lehrstuhl *Numerische Mathematik*

Université de Montréal, Department of Mathematics, DFG-Projekt, Lehrstuhl *Analysis*

Kuba

 Institute of Cybernetics, Mathematics and Physics: DAAD-Projekte 2006--2010 und 2011—2013, Lehrstuhl *Mathematische Statitik*

Mexiko

Centro de Investigación y de Estudios Avanzados, México, Departamento de Matemáticas, DFG-Projekt, Lehrstuhl *Analysis*

Niederlande

Centrum Wiskunde & Informatica, Amsterdam, Lehrstuhl *Numerische Mathematik*

Technical University Delft , Applied probability, Lehrstuhl *Wahrscheinlichkeitstheorie*

Polen

University of Zielona Gora, Department of Mathematics, Lehrstuhl *Allgemeine Algebra und Diskrete Mathematik*

Portugal

Universidade de Lisboa, Departamento de Matemática, Lehrstuhl *Allgemeine Algebra und Diskrete Mathematik*

Russland

International Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russian Academy of Sciences, Moscow, DFG-Projekt, Lehrstuhl *Angewandte Mathematik*

Staatliche Universität St.Petersburg, Department of Geophysics, DAAD-Projekt und G-RISC-Projekt, Lehrstuhl *Numerische Mathematik*

Siberian Federal University, Krasnoyarsk, Department of Mathematics, DAAD-Projekt, Lehrstuhl *Analysis*

Ufa Science Center of the Russian Academy of Sciences, Institute of Mathematics, DFG-RFBR-Projekt, Lehrstuhl *Analysis*

Schweiz

Eidgenössische Technische Hochschule Zürich, Computational Biology Group, PharMetrX-PhD-Programm, Lehrstuhl *Mathematische Modellierung und Systembiologie*

Spanien

Basque Center for Applied Mathematics, Bilbao, Lehrstuhl *Numerische Mathematik*

Thailand

Khon Khen University & Silpakorn University, Nakorn Pathom &Prince-Songkla University, Departments of Mathematics, Lehrstühle *Allgemeine Algebra und Diskrete Mathematik* und *Numerische Mathematik*

Ukraine

Institut für Mathematik der Nationalen Akademie der Wissenschaften der Ukraine, Kiew, AvHumboldt Stiftung Projekt, Lehrstühle *Analysis* und *Wahrscheinlichkeitstheorie*

Universität Taras Shevchenko, Kiew, Leonhard-Euler Programm *Analyse feiner Eigenschaften zufälliger Prozesse*, 2012-2014, Lehrstuhl *Wahrscheinlichkeitstheorie*

Vereinigtes Königreich

University of Cambridge, Department of Oncology and Cancer Research, Lehrstuhl *Mathematische Modellierung und Systembiologie*

University of Warwick & University of Edinburgh & Imperial College, Department of Mathematics, Lehrstuhl *Numerische Mathematik*

Imperial College London, Honorary Visiting Professor, Lehrstuhl *Numerische Mathematik*

University of Reading, Professor for Numerical Analysis, Lehrstuhl *Numerische Mathematik*

Vereinigte Staaten von Amerika

University of Michigan, Department of Electrical Engineering and Computer Science, U
Lehrstuhl *Mathematische Statistik*

University of Southern California, Lehstuhl *Angewandte Mathematik*
Perdue University, Indiana & Courant Institute, New York University & University of
Maryland, Department of Atmospheric Science, Lehrstuhl *Numerische Mathematik*

Betreuung von internationalen Doktoranden

(am Institut, länderweise ab 2011)

Algerien

Sabah Benmehdi (Prof. M. Holschneider)

Brasilien

André Gomes Oliveira (Potsdam/ São Paulo) (Co-Betreuung Dr. M. Högele)

Frankreich

Rüdiger Murr (Potsdam/Paris Ouest-Nanterre) 2009-2012 (Prof. S. Roelly)

Griechenland

Stefanos Samaras, 2013-2015 (apl. Prof. C. Böckmann)

Indonesien

Yeni Susanti, Gadjah Mada University, 2010- 2013 (PD J. Koppitz)

Irak

Ammar Al-Saedy, Al-Nachrain University, Baghdad, 2011- (apl. Prof. N. Tarkhanov)

Iran

Mohammad Pirhayati, 2011- (Prof. B-W. Schulze)

Vahid Rezanazhad, (Prof. M. Holschneider)

Italien

Giacomo di Gesu, 2009-2013 (Prof. M. Klein)

Giuseppe Cammarata (Prof. M. Holschneider)

Giovanni Conforti (Potsdam/Padua) 2012- (Prof. S. Roelly)

Libanon

Ihsane Malass, Université Libanaise, Beyrouth, 2011- (Prof. S. Paycha)

Libyen

Nadia Habal, Tripolis, 2011- 2013(Prof. B-W. Schulze)

Russland

Boris Prokhorov (Prof. M. Holschneider)

Shestakov, Siberian Federal University, 2010-2011
(Co-Betreuung: apl. Prof. N. Tarkhanov)

Thailand

Nawinda Chutsagulprom , 2012- (Prof. S. Reich)

Dara Phusanga, Maeo University, 2007- 2013 (PD J. Koppitz)

Worakrit Supaporn, Silpakorn Universität, 2009- (PD J. Koppitz)

Wannarut Rungrotheera, Bangkok University, 2010- 2013 (Prof. B-W. Schulze)

Pornsarp Pornsawad, Silpakorn University, 2006-2011 (apl. Prof. C. Böckmann)

Amornrat Rattana, 2006- 2013 (apl. Prof. C. Böckmann)

Korakot Wichitsa-Nguan, Prince of Songkla University, 2011- (apl. Prof. H. Liero)

Vietnam

Dinh Phuong Vu, University Hanoi, 2011- (Prof. T. Jahnke)

Weißrussland

Natallia Makarava (Prof. M. Holschneider)

Publikationen mit Kollegen aus dem Ausland *(ab 2011)*

G. Blanchard

mit: S. Delattre, E. Roquain. Testing over a Continuum of Null Hypotheses with False Discovery Rate Control. Bernoulli, 2013.

mit: T. Dickhaus, E. Roquain, F. Villers . On least favorable configurations for step-up-down tests. Statistica Sinica, 2013.

mit: R. Martinez-Noriega, A. Roumy, Exemplar-Based Image Inpainting: Fast Priority And Coherent Nearest Neighbor Search. IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2012) , 2012.

mit: C. Scott, G. Handy. Classification with Asymmetric Label Noise: Consistency and Maximal Denoising. International Conference on Learning Theory (COLT 2013), 2013

mit: C. Scott, Semi-Supervised Novelty Detection. Journal of Machine Learning Research 11 (2010) 2973-3009 und bei der referierten Konferenz NIPS (2011).

C. Böckmann

mit: A. Rattana, Matrix methods for computing eigenvalues of Sturm–Liouville problems of order four, Journal of Computational and Applied Mathematics 249 (2013) 144-156.

mit: L. Osterloh, D. Nicolae, A. Nemuc,   Regularized Inversion of Microphysical Atmospheric Particle Parameters: Theory and Application, Journal of Computational Physics 237 (2013) 79-94.

mit: P. Pornsawad, G. D'Amico, A. Amodeo, G. Pappalardo, The retrieval of aerosol extinction coef- ficient profiles from Raman lidar data by inversion. Applied Optics 51 (2012) 2035-2044.

mit: A. Hoffmann, L. Osterloh, R. Stone et al, Remote sensing and in-situ measurements of tropospheric aerosol, a PAMARCMiP case study. Atmospheric Environment 52 (2012) 56-66.

mit: L. Osterloh, R. E. Mamouri, A. Papayannis, An Adaptive Base Point Algorithm for the Retrieval of Aerosol Microphysical Properties. TOASCJ (2011) 61-73.

mit: A. Kammanee, A. Braunß , Logarithmic convergence rate of Levenberg–Marquardt method with application to an inverse potential problem, JIIP 19 (2011) 345-367.

mit: A. Kammanee, Broyden method for inverse non-symmetric Sturm-Liouville problems, BIT 51 (2011) 513-528.

M. Högele

mit: A. Debussche, and P. Imkeller, The dynamics of nonlinear reaction-diffusion equations with small Lévy noise. Springer Lecture Notes in Mathematics, Vol. 2085, (2013).

mit: A. Debussche, P. Imkeller, Asymptotic first exit times of the Chafee-Infante equation with small heavy-tailed Lévy noise. Electronic Communications in Probability 16 (2011) 213-225.

M. Holschneider

mit: P. Shebalin, C. Narteau, D. Schorlemmer,Short-term earthquake forecasting using early aftershock statistics. Bulletin of the Seismological Society of America, 101(2011)297-312.

mit: P. Shebalin, C. Narteau, From alarm-based to rate-based earthquake forecast models. Bulletin of the Seismological Society of America, 102 (2012) 64-72.

mit:C. Narteau, P. Shebalin, D. Schorlemmr, Z.Peng, Bayesian Analysis of Omori law, JGR 2012.

mit: Panet I., Y. Kuroishi, Wavelet modeling of the gravity field by domain decomposition methods: an example over Japan. Geophysical J. International, 184(2011)203-219.

W. Huisinga

mit B.-F. Krippendorff, D. A. Oyarzún, Predicting the F(ab)-mediated effect of monoclonal antibodies in vivo by combining cell-level kinetic and pharmacokinetic modeling. J. Pharmacokinet. Pharmacodyn. 39 (2012) 125-139.

mit A. Y. Weiße, Error-Controlled Global Sensitivity Analysis of Ordinary Differential Equations. J. Comput. Phys. 230 (2011) 6824-6842.

J. Koppitz

mit: I. Dimitrova, I. und Vitor H. Fernandes "The maximal subsemigroups of semigroups of transformations preserving or reversing the orientation on a finite chain" Publications Mathematicae Debrecen 81 1-2(2012), 11-29.

mit: S. Shtrakov "Finite Symmetric Functions with non-trivial arity gap" Serdica J. Computing 6 (2012), 419-436.

mit: W. Supaporn "Category Equivalences of Clones of Operations Preserving Unary Operations" Comptes rendus de l´Acadèmie bulgare des Sciences, Volume 66, No2(2013), 177-184.

mit: I. Dimitrova, On the maximal regular subsemigroups of ideals of order-preserving or order-reversing transformations. Semigroup Forum Volume 82-1(2011).

mit: I. Dimitrova, Coregular semigroups of full transformations. Demonstratio Mathematica 44-4 (2011) 730-753.

H. Liero

mit: S. Zwanzig, Introduction to the Theory of Statistical Inference, Ed. Chapman and Hall, 2011

mit: E. Chimitova, M. Vedernikova, Application of classical Kolmogorov, Cramér-von-Mises-Smirnov and Anderson-Darling Tests for censored samples. Proc. Workshop Applied Methods of Statistical Analysis AMSA 2011. Novosibirsk (2011) 176-185.

J. Metzger

mit: L. Andersson, M. Eichmair , Jang's equation and its applications to marginally trapped surfaces. Contemporary Mathematics Complex Analysis and Dynamical Systems IV: Part 2. General Relativity, Geometry, and PDE (2011) 13-46.

S. Paycha

mit: J. Mickelsson, The logarithmic residue density of a generalized Laplacian. J. Aust. Math. Soc. 90 (2011) 53–80.

mit: L.Guo und B. Zhang , Renormalization by Birkhoff factorization and by generalized evaluators; a study case. Noncommutative Geometry, Arithmetic and Related Topics, Ed. Connes, Consani. J. Hopkins University Press (2011) 183-211.

mit M-F. Ouedraogo, The multiplicative anomaly for determinants revisited locality. Comm. Math. Annal. 12 (2012) 28-63.

S. Reich

mit: C.J. Cotter, Ensemble filter techniques for intermittent data assimilation, Radon Book Series, in press.

mit: J. Amezcua, E. Kalnay, K. Ide, Ensemble transform Kalman-Bucy filter, Quarterly J. Royal Meteo. Soc., in press.

mit: S. Shin, and J. Frank, Hydrostatic Hamiltonian particle-mesh (HPM) methods for atmospheric modeling. Quarterly Journal of the Royal Meteorological Society, 138 , 1388-1399, 2012

mit: R.D. Skeel , Corrected potential energy functions for constrained molecular dynamics. European Physical Journal Special Topics, 200, 55-72, 2011.

mit: E. Akhmatskaya , New Hybrid Monte Carlo Methods for Efficient Sampling: from Physics to Biology and Statistics. Progress in Nuclear Science and Technology, 2, 447-462, 2011.

mit: E. Akhmatskaya , Meso-GSHMC: A stochastic algorithm for meso-scale constant temperature simulations. Procedia Computer Science 4 (2011) 1353-1362.

mit: G. Gottwald, L. Mitchell, Controlling overestimation of error covariance in ensemble Kalman filters with sparse observations: A variance limiting Kalman filter. Monthly Weather Review 139 (2011) 2650-2667.

mit: R.D. Skeel, Corrected potential energy functions for constrained molecular dynamics. European Physical Journal Special Topics 200 (2011) 55-72.

S. Roelly

mit: P. Keller and A. Valleriani, A quasi Random Walk to model a biological transport process, Methodology and Computing in Applied Probability (2013).

mit: S. Méléard, Evolutive two-level population process and large population approximations, Annals of the University of Bucharest (Mathematical Series) (2013).

B.-W. Schulze

mit: M.W. Wong, Mellin and Green operators of the corner calculus. J. Pseudo-Differ. Oper. Appl. 2- 4 (2011) 467-507.

mit. M.W. Wong, Mellin Operators with Asymptotics on manifolds with Corners, Oper. Theory: Adv. Appl. 213, Pseudo-Differential Operators: Analysis, Application and Computations (L. Rodino et al. eds.), Birkhäuser Verlag, Basel (2011) 31-78.

N. Tarkhanov

mit: P. M. Gauthier, On the instability of the Riemann hypothesis for curves over finite fields, Journal of Approximation Theory 164 (2012), 504--515.

mit: M. S. Agranovich et al., Boris Vasil'evich Fedosov, Uspekhi Mat. Nauk 67 (2012), Issue 1 (403), 169--176.

mit: V. Stepanenko, Formal solutions of epidemic equation, In: Mathematics and Life Sciences (Eds. A. Antoniouk and R. Melnik), Walter de Gruyter, Berlin, 2012, 13 pp.

mit: A. Antoniouk, The Dirichlet problem for the heat equation in domains with cuspidal points on the boundary, In: Operator Theory: Advances and Applications, V. 228, Springer, Basel AG, 2013, 1-20.

mit: S. Grudsky, Conformal reduction of boundary problems for harmonic functions in a plane domain with strong singularities on the boundary, Mathematical Sciences 7 (2013), no. 14, 1--52.

mit: S. Grudsky, A note on Muskhelishvili-Vekua reduction, Contemporary Mathematics 591 (2013), 113--126.

mit: K. Makhmudov and O. Makhmudov, Equations of Maxwell type. J. Math. Anal. Appl. 378-1 (2011) 64-75.

mit: L. Aizenberg, The Schwarz kernel in Clifford analysis. Contemporary Mathematics 553 (2011) 1-13.

mit: M. Elin and D. Shoikhet, Separation of boundary singularities for holomorphic generators. Annali di Matematica Pura ed Applicata 190 (2011) 595-618.

mit: S. Glebov and O. Kiselev, Forced nonlinear resonance in a system of coupled oscillators. Chaos 21 (2011) 023-109.

mit: L. Maergoiz, An analogue of the Paley-Wiener theorem and its applications to optimal recovery of entire functions. Ufimsk. Math. Zh. 3-1 (2011) 16-30.

Internationale Tagungen *(am Institut für Mathematik organisiert, ab 2011)*

- **Workshop "Nachwuchsforscherinnen in Stochastik"** in Potsdam, 10-11. Oktober 2013.

- **Conference "Structural Inference in Statistics"** in Potsdam - Sanssouci, Sept. 17-19, 2013 (Mit der Förderung der DFG-Forschergruppe "FOR1735--Structural inference in Statistics: Adaptation and Efficiency"). http://www.mathematik.hu-berlin.de/~for1735/potsdam/index.php?site=home
- **Geometric and Singular Analysis**, 12.-16. März 2012.
- **Analysis, Geometry and Quantum Field Theory**, 26.-30. September 2011.
- **Applications of Stochastic Processes VI**, Tagung des Deutsch-Französischen Doktorandenkollegs Paris-Ouest Nanterre/Potsdam, 6.-8. Juli 2011.
- **ICS-AAA82**, 24.- 26. Juni 2011.
- **Geometric and Singular Analysis**, 7.-11. März 2011.

Mitherausgeberschaft von internationalen Zeitschriften
(Mitglieder des Instituts gehören folgenden Editorial Boards an)

- Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg
  Web: http://www.springer.com/mathematics/algebra/journal/12188

- Advances in Partial Differential Equations
  Web: http://www.springer.com/series/5034

- Annales de l'Institut Henri Poincaré, Probabilités et Statistiques (2010-)
  Web: http://imstat.org/aihp/

- Asian-European Journal of Mathematics
  Web: http://vm-jn.wspc.com.sg/aejm/mkt/editorial.shtml

- Discussiones Mathematicae GAA
  Web: http://www.discuss.wmie.uz.zgora.pl/al/

- Documenta Mathematica
  Web: http://www.math.uni-bielefeld.de/documenta/stab.html

- Electronic Journal of Statistics (2007 -) http://imstat.org/ejs/

- Annales de l'Institut Henri Poincaré, Probability and Statistics (2010 -)
  http://imstat.org/aihp/

- Annals of Statistics (2013 -) http://www.imstat.org/aos/

- European Geosciences Union: Division on Natural Hazards
  Web: http://www.egu.eu/inside-egu/divisions-and-present-officers/division-natural-hazards/inside-nh/administration.html

- International Journal on Geomathematics (GEM) (2011-)
  Web:http://www.springer.com/mathematics/applications/journal/13137?detailsPage=editorialBoard

- Journal of Computational Dynamics (JCD) (2012-)
  Web: http://aimsciences.org/journals/JournalEditorialBoard.jsp?journalID=24

- Journal of Modern Mathematics Frontier (JMMF)
  http://www.sjmmf.org/Default.aspx

- Journal of Pharmacokinetics and Pharmacodynamics (2011-)
  Web:http://www.springer.com/biomed/pharmaceutical+science/journal/10928?detailsPage=editorialBoard

- Journal of Siberian Federal University
  Web: http://journal.sfu-kras.ru/en/series/mathematics_physics/editorial-board

- Mathematische Nachrichten
  Web: http://www.wiley-vch.de/publish/en/journals/alphabeticIndex/2239/

- Nonlinear Processes in Geophysics" (gemeinsames Journal von EGU und AGU)
  Web: http://www.nonlinear-processes-in-geophysics.net/general_information/editorial_board.html

- Raisons Comparaisons Educations (2007-)
  http://www.editions-harmattan.fr/index.asp?navig=catalogue&obj=revue&no=133

- SIAM Journal on Numerical Analysis (SINUM) (2012-)
  Web: http://www.siam.org/journals/sinum/board.php

- The Electronic Journal of Statistics (2008-)
  Web: http://imstat.org/ejs/

- The Open Applied Mathematical Journal (2008-)
  Web: http://www.benthamscience.com/open/toamj/EBM.htm

- The Open Atmospheric Science Journal (2007-)
  Web: http://www.benthamscience.com/open/toascj/EBM.htm