

## LIST OF PUBLICATIONS

ASSOC. PROF. PHD. HABIL. **HANNELORE INGE LISEI (BRECKNER)**

### **Papers published in journals indexed in WOS**

- 1) H. Breckner, Approximation of the Solution of the Stochastic Navier-Stokes Equation. *Optimization* 49, 15-38 (2001).
- 2) H. Lisei, Existence of Optimal and Epsilon-Optimal Controls for the Stochastic Navier-Stokes Equation. *Nonlinear Analysis* 51, 95-118 (2002).
- 3) G. Guatteri, H. Lisei, The Stochastic Characteristics Method Applied to a Stochastic Schrödinger Equation. *Stochastic Analysis and Applications* 21, 801-817 (2003).
- 4) F. Flandoli, H. Lisei, Stationary Conjugation of Flows for Parabolic SPDE's with Multiplicative Noise and Some Applications. *Stochastic Analysis and Applications* 22(6), 1385-1420 (2004).
- 5) P. Bates, H. Lisei, K. Lu, Attractors for Stochastic Lattice Dynamical Systems. *Stochastics and Dynamics*, Vol. 6, No. 1, 1-21 (2006).
- 6) H. Lisei, Cs. Varga, Some Applications to Variational-Hemivariational Inequalities of the Principle of Symmetric Criticality for Motreanu-Panagiotopoulos Type Functionals. *Journal of Global Optimization* 36 (2), 283-305 (2006).
- 7) F. Faraci, A. Iannizzotto, H. Lisei, Cs. Varga, A Multiplicity Result for Hemivariational Inequalities. *Journal of Mathematical Analysis and Applications* 330, 683-698 (2007).
- 8) A. Kristaly, H. Lisei, Cs. Varga, Multiple solutions for p-Laplacian type equations. *Nonlinear Anal. TMA* 68, 1375-1381 (2008).
- 9) H. Lisei, Cs. Varga, A. Horvath, Multiplicity results for a class of quasilinear eigenvalue problems on unbounded domains, *Archiv der Math.* 90, 256-266 (2008).
- 10) H. Lisei, Cs. Varga, Multiple Solutions for a Differential Inclusion Problem with Nonhomogeneous Boundary Conditions, *Numerical Functional Analysis and Optimization*, 30 (5–6) , 566-581 (2009).
- 11) H. Lisei, Gh. Morosanu, Cs. Varga, Multiplicity Results for Double Eigenvalue Problems Involving the p-Laplacian, *Taiwanese Journal of Mathematics*, 13. No.3, 1095-1110 (2009).
- 12) H. Lisei, Csaba Varga, Multiple Solutions for Gradient Elliptic Systems with Nonsmooth Boundary Conditions, *Mediterr. J. Math.* 8, 69-79 (2011).
- 13) H. Lisei, Andrea Éva Molnár, Csaba Varga, On a class of inequality problems with lack of compactness, *Journal of Mathematical Analysis and Applications* Volume 378, Issue 2, 2011, 741-748 (2011).
- 14) W. Grecksch, H. Lisei, Stochastic nonlinear equations of Schrödinger type. *Stochastic Analysis Applications*, 29, No. 4, 631-653 (2011).
- 15) W. Grecksch, H. Lisei, Approximation of Stochastic Nonlinear Equations of Schrödinger Type by the Splitting Method. *Stochastic Analysis and Applications* 31(2), 314-335 (2013).
- 16) H. Lisei, Cs. Varga, A multiplicity result for a class of elliptic problems on a compact Riemannian manifold. *Journal of Optimization Theory and Applications*, Vol. 167, Issue 3, 912-927 (2015).
- 17) D. Keller, H. Lisei, Variational solution of stochastic Schrödinger equations with power-type nonlinearity. *Stoch. Anal. Appl.* 33 (2015), no. 4, 653-672.
- 18) H. Lisei, R. Precup, Cs. Varga, A Schechter type critical point result in annular conical domains of a Banach space and applications. *Discrete and Continuous Dynamical Systems – Series A (DCDS-A)* Vol. 36, Number 7, 3775-3789 (2016).

- 19) H. Lisei, O. Vas, Critical point result of Schechter type in a Banach space. *Electronic Journal of Qualitative Theory of Differential Equations*, 2016, No. 14, 1-16 (2016).
- 20) H. Lisei, D. Keller, A stochastic nonlinear Schrödinger problem in variational formulation, *Nonlinear Differ. Equ. Appl. NODEA* Vol. 23, Issue 2, 1-27 (2016).
- 21) W. Grecksch, H. Lisei, Linear Approximation of nonlinear Schrödinger equations driven by cylindrical Wiener Processes. *Discrete Contin. Dyn. Syst. – Series B*, Volume: 21 (2016), Issue: 9, 3095-3114.
- 22) H. Lisei, Cs. Varga, O. Vas, Localization method for the solutions of nonhomogeneous operator equations, *Applied Mathematics and Computation* 329, 64-83 (2018) .
- 23) W. Grecksch, H. Lisei, J. Jens Lueddeckens, Parameter estimations for linear parabolic fractional SPDEs with jumps, *Stud. Univ. Babeş-Bolyai Math.* 64, No. 2, 279-289 (2019).
- 24) B.E. Breckner, H. Lisei, Approximations of the solution of a stochastic Ginzburg-Landau equation, *Stud. Univ. Babeş-Bolyai Math.*, 66, No. 2, 307-319 (2021).
- 25) B.E. Breckner, H. Lisei, Gh.I. Simon, Optimal control results for a class of stochastic Schrödinger equations, *Applied Mathematics and Computation* 407 (2021).
- 26) W. Grecksch, H. Lisei, An optimal control problem for a linear SPDE driven by a multiplicative multifractional Brownian motion, Vol. 22, Issue 7, Article number 22400202 (2022).
- 27) G. Czibula, G. Ciubotariu, M.I. Maier, H. Lisei, IntelliDaM: A Machine Learning-Based Framework for Enhancing the Performance of Decision-Making Processes. A Case Study for Educational Data Mining, *IEEE ACCESS*, Volume 10, 80651-80666 (2022).

**Papers published refereed journals** (Zentralblatt MATH, Mathscinet)

- 1) H. Breckner, Approximation of the Solution of a Stochastic Evolution Equation. *Studia Univ. Babeş-Bolyai, Ser. Mathematica* 42, Nr. 1, 45-58 (1997).
- 2) H. Breckner, An Extension of the Spline Functions of Fourier Type. *Studia Univ. Babeş-Bolyai, Ser. Mathematica* 42, Nr. 4, 19-33 (1997).
- 3) H. Lisei, The Markov Property for the Solution of the Stochastic Navier-Stokes Equation. *Studia Univ. Babeş-Bolyai, Ser. Mathematica XLIV*, nr. 4, 55-71 (1999).
- 4) H. Lisei, A Minimum Principle for the Stochastic Navier-Stokes Equation. *Studia Univ. Babeş-Bolyai, Ser. Mathematica* 45, Nr. 2, 37-65 (2000).
- 5) H. Breckner, Galerkin Approximation and the Strong Solution of the Stochastic Navier-Stokes Equation. *Journal of Applied Mathematics and Stochastic Analysis* 13, nr. 3, 239-259 (2000).
- 6) H. Lisei, A Special Evolution Equation Used in the Analysis of the Stochastic Navier-Stokes Equation. *Random Operators and Stochastic Equations* 9, nr. 1, 63-86 (2001).
- 7) H. Lisei, Conjugation of Flows for Stochastic and Random Functional Differential Equations. *Stochastics and Dynamics* 1, nr. 2, 283-298 (2001).
- 8) H. Lisei, M. Scheutzow, Linear Bounds and Gaussian Tails in a Stochastic Dispersion Model. *Stochastics and Dynamics* 1, nr. 3, 389-403 (2001).
- 9) H. Lisei, Approximation by Time Discretization of Special Stochastic Evolution Equations. *Mathematica Pannonica* 12, 245-268 (2001).
- 10) H. Lisei, Flows for the stochastic Navier-Stokes Equation. *Mathematica Pannonica* 13, nr. 2, 223-240 (2002).
- 11) H. Lisei, A. Soós, Wavelet Approximation of the Solutions of Some Stochastic Differential Equations. *PUMA (Pure Mathematics and Applications)*, 15, 213-223 (2005).
- 12) H. Lisei, I. Marchiş, Numerical Simulations for Stochastic Lattice Equations. *Mathematica Pannonica* 16, 249-262 (2005).

- 13) H. Lisei, D. Julitz, A Stochastic Model for the Growth of Cancer Tumors. *Studia Univ. Babeş-Bolyai, Ser. Mathematica* LIII, nr. 4, 39-56 (2008).
- 14) H. Lisei, Multiple Solutions for Double Eigenvalue Problems Involving Dirichlet Forms. *Festschrift in Celebration of Prof. Dr. Wilfried Grecksch's 60th Birthday*. Shaker Verlag, Aachen, ISBN 978-3-8322-7500-6, p.133-148 (2008).
- 15) H. Lisei, Cs. Varga, Multiple Solutions for Nonlinear Equations Involving Dirichlet Forms. *Topics in Mathematics, Computer Science and Philosophy*. St. Cobzas (Ed.), Presa Universitară Clujeană, Cluj-Napoca, ISBN: 978-973-610-672-9, p. 135-145 (2008).
- 16) H. Lisei, Ioana Lazăr, Application of a Three Critical Point Theorem for a Class of Inclusion Problems. *Mathematica (Academia Română)*, Vol. 53 (76), No. 2 (2011).
- 17) W. Grecksch, H. Lisei, Stochastic Schrödinger Equation Driven by Cylindrical Wiener Process and Fractional Brownian Motion, *Studia Universitatis Babeş - Bolyai, Series Mathematica, Volume LVI, Number 2*, 381-391 (2011).

### **Papers published in proceedings / in edited volumes**

1. H. Lisei, M. Scheutzwow, On the dispersion of sets under the action of an isotropic Brownian flow. *Proceedings of the Swansea 2002 Workshop Probabilistic Methods in Fluids*, Swansea, p. 224-239, ISBN: 978-981-238-226-9, World Scientific Publishing (2003).
2. K.-I. Benta, M. Cremene, H. Lisei, Towards a Unified 3D Affective Model. *Doctoral Consortium Proceedings of International Conference on Affective Computing and Intelligent Interaction (ACII2007)*, Lisbon, Portugal, 12-14 September 2007, p. 75-85, ISBN 978-989-20-0798-4 (2007).
3. H. Lisei, A. Soós, Approximation of SDE Driven by Fractional Brownian Motion. *Proceedings of the Conference "Fifth Seminar on Stochastic Analysis, Random Fields and Applications"*, Ascona 2005. *Progress in Probability* 59, p. 229-244, ISBN 978-3-7643-8457-9, Birkhäuser Verlag (2007).
4. W. Grecksch, H. Lisei, Stochastic Schrödinger Equations, Chapter 3 in "Infinite Dimensional and Finite Dimensional Stochastic Equations and Applications in Physics", p. 115-158, ISBN: 978-981-120-978-9, World Scientific Publishing (2020).

### **Publications in didactical journals**

1. D. A. Filip, H. Lisei, *Random Variables Used in Hull Insurance*, *Studia Universitatis Babeş-Bolyai Oeconomica*, XLVIII, No. 2, 65-70 (2003)
2. M. Iancu, H. Lisei, Properties of random walks in dimension one, *Didactica Mathematica*, 35 (2017), 45-58; <http://www.math.ubbcluj.ro/~didactica/pdfs/2017/didmath2017-07.pdf>.

### **Published books**

1. H. Lisei, *Probability Theory*, Editura Casa Cărții de Știință, Cluj-Napoca, 2004, ISBN 973-686-596-7.
2. H. Lisei, S. Micula, A. Soós, *Probability Theory Through Problems and Applications*, Editura Presa Universitară Clujeană, Cluj-Napoca, 2006, ISBN-13 978-973-610-492-3.
3. H. Lisei, W. Grecksch, M. Iancu, *Probability: Theory, Examples, Problems, Simulations*, World Scientific Publishing, Singapore, 2020, ISBN 978-981-120-573-6.

4. H. Lisei, *Approximation and Optimal Control of Stochastic Navier-Stokes Equations*, Editura EFES, Cluj-Napoca, 2006, ISBN 978-973-7677-53-2.

**Editor of the following volume**

*Infinite Dimensional and Finite Dimensional Stochastic Equations and Applications in Physics*, World Scientific Publishing, Singapore, 2020, ISBN: 978-981-120-978-9. Editors: W. Grecksch, H. Lisei