

## Publications

- **Infinite Dimensional and Finite Dimensional Stochastic Equations and Applications in Physics. (with Lisei, H.)**  
World Scientific Publishing, Singapore. To appear June 2020.
- **Probability Theory, Problems, Simulations. (with Lisei, H. and Iancu, M.)**  
World Scientific Publishing, Singapore. To appear March 2020.
- **Parameter estimations for linear parabolic fractional SPDEs with jumps. (with Lisei, H. and Lueddeckens, J.)**  
Stud. Univ. Babeş-Bolyai Math. 64(2019), No. 2, 279–289.
- **Quantum Hamilton equations for multidimensional systems. (with Beyer, M., Patzold, M. and Paul, W.)**  
Journal of Physics A Mathematical and Theoretical 52(16) 165301(2019).
- **Quantum Hamilton equations of motion for bound states of one-dimensional quantum systems. (with Köppe J., Patzold M. and Paul W.)**  
J. Math. Phys. 59, 062102 (2018), doi: 10.1063/1.5026377.
- **Derivation and application of quantum Hamilton equations of motion. (with Köppe, Jeanette; Paul, Wolfgang)**  
*Annalen der Physik - Berlin: Wiley-VCH, Bd. 529.2017, 3, S. 1600251*
- **Linear Approximation on Nonlinear Schrödinger Equations driven by Cylindrical Wiener Processes (with H. Lisei)**  
*Discrete and Continuous, Dynamical Systems Series B, Vol. 21,Nr. 9, 2016, 3095-3114.*
- **Derivation and application of quantum Hamilton equations of motion (with J. Köppe and W. Paul)**  
*Ann. Phys. (Berlin), 1600251, 2016, S.1-9.*
- **New impacts of Grossman's health investment model and the Russian demand for medical care (with Chr. Burggraf, T. Glauben)**  
*J. Public Health, 2016, 24:41-56.*
- **Stochastic Control of Individual's Health Investments (with Chr. Burggraf, T. Glauben)**  
*Dynamical Systems, Differential Equations and Applications, AIMS Proceedings, 2015, pp.159-168.*
- **Fractional with noise calculus in infinite dimensions (with Chr. Roth)**  
*Random operators and stochastic equations. - Berlin : de Gruyter, Bd. 22.2014, 3, S. 179-193.*
- **Approximation of Stochastic Nonlinear Equations of Schrödinger Type by the Splitting Method (with H. Lisei)**  
*Stochastic Analysis and Applications, 31: 314-335, 2013.*
- **An Infinite-Dimensional Fractional Linear Quadratic (with V. V. Anh)**  
*Stochastic Analysis and Applications, 30, 2012, 203-219.*
- **The optimal linear control system with stochastic structure (with V. G. Zadorozhny)**

*Proceedings of Voronezh State University, Series: Systems Analysis and Information Technologies, 2011, No. 1, S. 15-21.*

- Stochastic Schrödinger equation driven by cylindrical Wiener process and fractional Brownian motion  
(with Hannelore Lisei)  
*Stud. Univ. Babeş-Bolyai Math. 56(2011), No. 2, 381-391.*
- Stochastic Nonlinear Equations of Schrödinger Typ  
(with Hannelore Lisei)  
*Stochastic Analysis and Applications, Vol. 29, Issue 4, 2011, 631-653.*
- Regularity of Backward Stochastic Volterra Integral Equations in Hilbert Spaces  
(with V. V. Anh and Jingmin Yong)  
*Stochastic Analysis and Applications, Vol. 29, Issue 1, 2011, 146-168.*
- Q-fractional brownian motion in infinite dimensions with application to fractional black-scholes market  
(with Christian Roth and V. V. Anh)  
*In: Stochastic analysis and applications. - Philadelphia, Pa. [u.a.] : Taylor & Francis, Bd. 27, 2009, 1, S. 149-175.*
- A quasilinear stochastic partial differential equation driven by fractional white noise  
(with Christian Roth)  
*Monte Carlo Methods and Applications, 13: 353-368, (2008).*
- An  $\varepsilon$ -optimal portfolio with stochastic volatility.  
(with A. Gabih)  
*Monte Carlo Methods and Applications, 11: 1-14, (2005).*
- Dynamic portfolio optimization with bounded shortfall risks.  
(with A. Gabih and R. Wunderlich)  
*Stochastic Analysis and Applications, 23(3): 579-594, (2005).*
- A fractional stochastic evolution equation driven by fractional Brownian motion.  
(with V. V. Anh)  
*Monte Carlo Methods and Applications, Vol. 9, No. 3, 2003, pp. 189-293.*
- A characterization of approximate solutions of multiobjective stochastic optimal control problems  
(with F. Heyde, G. Isac and Chr. Tammer)  
*Optimization (2003), Vol. 52, pp. 153-170.*  
*Reports of the Institute of Optimization and Stochastics, Report No. 18, 2002.*
- An  $\varepsilon$ -Minimum Principle for Multiobjective Stochastic Optimal Control Problems.  
(with F. Heyde and Chr. Tammer)  
*Investigation Operational, Vol. 23, No. 1, 2002, pp. 27-36.*
- An Algorithm for Infinite Dimensional Stochastic Control Problems  
*ZAMM 82 (2002), 767-780.*
- Exploitation of necessary and sufficient conditions for suboptimal solutions of multiobjective stochastic control problems  
(with F. Heyde and Chr. Tammer)  
*Mathematical Methods of Operations Research, Vol. 54, Issue 3 (2001), 425-438.*
- Parameterschätzung im Vasicek-Modell  
(mit Marian Brandau und Frank Ebert)  
*DGVM, Konrad-Triltsch-Verlag (2001), Band XXV, Heft 2, 203-209.*
- Exploitation of necessary and sufficient conditions for suboptimal solutions of multiobjective stochastic control problems.

- (with F. Heyde and Chr. Tammer)  
*Reports of the Institute of Optimization and Stochastics, Report No. 7, 2001.*
- **A parallel Version of Quasigradient Method in Stochastic Control Theory**  
 (with Thomas Pohl and Holger Blaar)  
*Optimization (2001), Vol. 49, 95-114.*
  - **Zur Modellierung des Zufalls**  
*Wissenschaftsjournal der Martin-Luther-Universität Halle-Wittenberg, scientia halensis 4 (2000), 3-4.*
  - **Proximal Point Algorithm for an Approximated Stochastic Optimal Control Problem**  
 (with F. Heyde and Chr. Tammer)  
*Monte Carlo Methods and Appl. Vol. 6, No. 3, pp.175-189 (2000)*  
*Reports of the Institute of Optimization and Stochastics, Report No. 20, 2000.*
  - **Fractional diffusion and fractional heat equation**  
 (with J.M. Angulo, V.V. Anh, and M.D. Ruiz-Medina)  
*Advances in Applied Probability, 32(4), 2000.*
  - **Parabolic Regularization of a First Order Stochastic Partial Differential Equation** (with C. Tudor)  
*Stochastic Analysis and Applications , Vol. 18, Number 3, 2000, pp. 397-416*
  - **Approximation of stochastic evolution equations and application to equations with fractional power of infinitesimal operators**  
 (with V.V. Anh)  
*Random Oper. and Stoch. Equ., Vol. 8, No. 1, pp. 27-38(2000)*
  - **The Wiener-Hopf Integral Equation for Fractional Riesz-Bessel Motion**  
 (with V.V. Anh, J.M. Angulo and M.D. Ruiz-Medina)  
*J. Austral. Math. Soc. Ser. B 42(2000), 1-14*
  - **Approximation of stochastic Hammerstein integral equation with fractional Brownian motion input**  
 (with V.V. Anh)  
*Monte Carlo Methods and Applications, Vol. 5, No. 4(1999), pp. 311-323*
  - **A stochastic Goursat Problem**  
 (with V.V. Anh and A. Wadewitz)  
*Stochastic Analysis and Applications 17(1999) 315-327*
  - **A Parallel Modified Lagrangian Method for an Optimal Control Problem of a Linear Distributed Stochastic System.**  
 (with Th. Pohl and H. Blaar)  
*Reports of the Institute of Optimization and Stochastics, Report No. 9 (1999),*
  - **A parabolic stochastic differential equation with fractional Brownian motion input** (with V.V. Anh)  
*Statistics & Probability Letters 41 (1999) 337-346*
  - **A parallel modified Lagrangian Method for an optimal control problem of a linear distributed stochastic system** (with Th. Pohl and H. Blaar)  
*Monte Carlo Methods Appl. 4 (1998), no. 4, 319-340*
  - **Approximation of Stochastic Differential Equations with Modified Fractional Brownian Motion**  
 (with V.V. Anh)  
*ZAA 17 (1998) 3, 715-727*
  - **An Identification Problem for Partially Observed Infinite Dimensional Linear Stochastic Systems**  
 (with C. Tudor)  
*Optimization 43 (1998), 199-217,*

- **Parabolic Regularization of a First Order Stochastic Partial Differential Equation**  
(with C. Tudor)  
*Reports of the Institute of Optimization and Stochastics, Report No. 17(1998).*
- **A Parallel Application of a Quasigradient Method in Stochastic Control Theory**  
(with Th. Pohl, H. Blaar)  
*Reports of the Institute of Optimization and Stochastics, Report No. 11(1998).*
- **Lösung einer parabolischen stochastischen Differentialgleichung mit parallelen Algorithmen**  
(mit Th. Pohl und H. Blaar)  
*4. Leipziger Informatik Tage 1996, Konferenzband, 33-36*
- **Approximation of solutions of stochastic differential equations by discontinuous Galerkin methods**  
(with A. Wadewitz)  
*ZAA 15(1996)4, 901-916*
- **Time-discretised Galerkin approximations of parabolic stochastic PDEs**  
(with P. E. Kloeden)  
*Bull. Austr. Math. Soc., Vol. 54(1996), 79-85*
- **A splitting up method for nonlinear parabolic Ito equations**  
*Reports of the Institute of Optimization and Stochastics, Report No. 26 (1996).*  
(28kb dvi file)
- **A stochastic variational inequality**  
*ZAMM 75 (1995), 559-560*
- **Stochastic evolution equations - a Hilbert space approach**  
(with C. Tudor)  
*Mathematical Research, vol. 85, Akademie Verlag, Berlin 1995 (178 pages)*
- **A stochastic nonlinear evolution equation**  
*ZAA 11(1992) 4, 539-552*