

CURRICULUM VITAE

Daniel Lenz

Date of birth: 05. October 1970

Nationality: german.

Professional Status: Chair of Analysis at Friedrich-Schiller-Universität, Jena, Germany.

Address: Friedrich-Schiller-Universität Jena

Fakultät für Mathematik und Informatik

Mathematisches Institut

D-07737 Jena, Germany

Phone: ++49- 3641 9 46 131 **Fax:** ++ 49- 3641 9 46102

E-mail: daniel.lenz@uni-jena.de

Education

Habilitation in Mathematics, TU Chemnitz, Chemnitz, June 2005.

PhD in Mathematics, Johann-Wolfgang-Goethe Universität, Frankfurt am Main. Advisors: Professor Dr. J. Weidmann and Hochschuldozent Dr. P. Stollmann, September 2000.

Diplom in Mathematics, Advisors: Professor Dr. J. Weidmann and Hochschuldozent Dr. P. Stollmann, June 1996.

Positions

Professor (W3) - Analysis, Friedrich-Schiller Universität, Jena, since October 2008.

Juniorprofessor - Mathematische Physik, TU Chemnitz, January 2004 – September 2008.

Research Associate (Wissenschaftlicher Assistent), TU Chemnitz, group of Prof. Dr. P. Stollmann, July 2001 – January 2004.

Research Associate (Wissenschaftlicher Mitarbeiter), Johann-Wolfgang-Goethe Universität, Frankfurt am Main, group of Prof. Dr. J. Weidmann, October 2000 – June 2001.

Further research experience

Gastprofessor, TU Graz, invited by Prof. Dr. W. Woess, March 2013.

Professeur invité, Université Cergy-Pontoise, invited by Prof. Dr. F. Germinet, October 2009.

Visiting associate professor, Rice University, Houston, August 2007 – March 2008.

Stay at California Institute of Technology, Pasadena, invited by Prof. Dr. B. Simon, September 2003.

Postdoctoral fellow, Hebrew University, Jerusalem, group of Prof. Dr. Y. Last, supported by Landau Center, March 2001 – June 2001.

Visiting Scholar, UC Berkeley, group of Prof. Dr. M. Rieffel, March 1999 – August 1999.

Research interests

- Random and equivariant Schrödinger operators.
- Aperiodic order and dynamical systems of low complexity.
- Geometry and spectral theory of Dirichlet spaces.

Grants and Fellowships

German Research Foundation (DFG): Research Grant within *Priority programme: Geometry at infinity* (joint with Matthias Keller, Potsdam) (1 PhD position for 3 years), since spring 2017.

German Research Foundation (DFG): Research Grant within *Graduiertenkolleg Quanten- und Gravitationsfelder (Jena)*, (one PhD position for 54 months), since fall 2013.

German Research Foundation (DFG): Research Grant (joint with Matthias Keller), *Geometry of discrete spaces and spectral theory of non-local operators*, (one PhD position for 3 years, one Postdoc position for 12 months), since 2012.

German Research Foundation (DFG): Research Grant, *Zufällige und periodische Quantengraphen*, (one PhD position for 3 years, one Postdoc position for 12 months), 2009–2015.

German Research Foundation (DFG): Research Grant (joint with Peter Stollmann, TU Chemnitz), *Delone dynamische Systeme: Ergodentheorie, Diffraction und Operatortheorie*, (one PhD position for 3 years, one Postdoc position for 12 months), 2004 – 2008.

German Research Foundation (DFG): Research Grant within *Schwerpunkt Quasikristalle* (joint with Peter Stollmann, TU Chemnitz), (one PhD position for 3 years), 2001 – 2003.

Landau Center, Jerusalem: Postdoctoral fellowship, March 2001 – June 2001.

German National Academic Foundation (Studienstiftung des deutschen Volkes): Dissertational scholarship, July 1997 - July 2000. Student scholarship, March 1992 – June 1996.

Organisation of Scientific Meetings

Workshop *Spectral Structures and Topological Methods in Mathematical Quasicrystals*, MFO, October 2017 (jointly organized with Michael Baake (Bielefeld), David Damanik (Rice University), Johannes Kellendonk (Lyon)), to come.

Mini-Workshop *Discrete p -Laplacians: Spectral Theory and Variational Methods in Mathematics and Computer Science*, MFO, February 2015 (jointly organized with Delio Mugnolo (Hagen), Matthias Hein (Saarbrücken)).

Fall school *Dirichlet forms, operator theory and mathematical physics* in Djerba, October 6–October 10, 2014 (jointly organized with Ali Ben Amor (Gabes & Tunis), Peter Stollmann (TU Chemnitz), Ivan Veselić (TU Chemnitz)).

Meeting *Mathematical Physics in Jena*, September 16 - September 20, 2014 (jointly organized with David Hasler, Friedrich-Schiller-Universität Jena).

One day workshop *Geometric aspects in probability and analysis*, September 14, 2013 in Jena (jointly organized with Matthias Keller and Marcel Schmidt, both Friedrich-Schiller-Universität Jena).

Workshop *Dirichlet forms, operator theory and mathematical physics* in Djerba, December 8 - December 13, 2012 (jointly organized with Ali Ben Amor (Gabes & Tunis), Peter Stollmann (TU Chemnitz), Ivan Veselić (TU Chemnitz)).

Almost periodic order: spectral, dynamical and stochastic approaches, BIRS, Banff, September 25 - September 30, 2011 (jointly organized with Michael Baake (Bielefeld), David Damanik (Rice University)).

Summer School *Graphs and Spectra* at TU Chemnitz, July 18 – July 22, 2011 (jointly organized with Peter Stollmann (TU Chemnitz), Ivan Veselić (TU Chemnitz)).

Workshop on *Dynamical systems and aperiodic order*, Bielefeld, March 14 – March 17, 2011 (jointly organized with Michael Baake (Bielefeld), Tom Ward (Norwich)).

Walkshop 2010 in Jena (jointly organized Peter Stollmann (TU Chemnitz) and Ivan Veselić (TU Chemnitz)).

Special Session on *Dynamical Systems and Spectral Theory of Ergodic Operators* at AIMS 2010, Dresden (jointly organized with Peter Stollmann (TU Chemnitz)).

Winter-School *Operators and Fractals* in Siegmundsburg, Germany, March 7 – March 12, 2010 (jointly organized with Uta Freiberg (Siegen)).

Mini-Course on *Graphs, Quantum Graphs and their Spectra* and *Walkshop 2009* Techni-

sche Universität Chemnitz September 15 – September 18, 2009 (jointly organized with Peter Stollmann, Ivan Veselić, both TU Chemnitz).

Minworkshop *The Pisot Conjecture- From Substitution Dynamical Systems to Rauzy Fractals and Meyer sets*, Mathematisches Institut Oberwolfach, March 2009 (jointly organized with Valerie Berthé (Paris), David Damanik (Rice University)).

Workshop *Aspects of aperiodic order*, University of Bielefeld, Germany, July 3 – July 5, 2008 (jointly organized with Christoph Richard (Bielefeld)).

Minisymposium *Random Hamiltonians* at Equadiff 2007, Wien, August 2007 (jointly organized with Peter Stollmann (TU Chemnitz)).

Minisymposium *Spektraltheorie und ergodische Operatoren*, (jointly organized with Christoph Richard (Bielefeld), Peter Müller (Göttingen), Ivan Veselić (TU Chemnitz)), DMV-Jahrestagung 2006, Bonn.

Walkshop *Operators, Spectra and Mathematical Physics* TU Chemnitz, May 12, 2006, (jointly organized with Peter Stollmann, Ivan Veselić, both TU Chemnitz)).

Miniworkshop *L^2 -invariants and the integrated density of states*, MFO, February 2006 (jointly organized with Josef Dodziuk (CUNY), Thomas Schick (Göttingen), Ivan Veselić (TU Chemnitz)).

Miniworkshop *Dynamics of Cocycles and One-dimensional Spectral Theory*, MFO, November 2005 (jointly organized with David Damanik (Caltech), Russell A. Johnson (Florenz)).

Workshop *Between Order and Disorder*, September 25. – September 27, 2002, Ernst-Moritz-Arnd Universität-Greifswald, (jointly organized with Michael Baake (Greifswald), Peter Stollmann (TU Chemnitz)).

Reviewer

Research organizations

- Agence National de la Recherche (ANR), France.
- Alexander von Humboldt-Stiftung (AvH), Germany.
- Deutsche Forschungsgemeinschaft (DFG), Germany.
- Israel Science Foundation (ISF), Israel.
- National Science Foundation (NSF), USA.
- Natural Sciences and Engineering Research Council of Canada (NSERC), Canada.
- Superior Council of the National Fund for Scientific Technological Development (FONDECYT), Chile.

Journals

- Annales Henri Poincaré.
- Bulletin of the London Mathematical Society.
- Canadian Mathematical Bulletin.
- Communications in Mathematical Physics.
- Compositio Mathematica.
- Contemporary Mathematics.
- Discrete and Computational Geometry.
- Discrete and Continuous Dynamical Systems (Series A und Series B),
- Documenta Mathematica.
- Integral Equations and Operator Theory.
- Inverse Problems.
- Journal of Algebra.
- Journal of Approximation Theory.
- Journal of the Australian Mathematical Society.
- Journal of Functional Analysis.

- Journal of Mathematical Analysis and Applications.
- Journal of Mathematical Physics.
- Journal of Operator Theory.
- Journal of Statistical Physics.
- J. Phys. A: Mathematics and General.
- Letters in Mathematical Physics.
- Mathematical Modelling of Natural Phenomena.
- Mathematical Physics, Analysis and Geometry.
- Mathematische Annalen.
- Mathematische Monatshefte.
- Mathematische Nachrichten.
- Nonlinearity.
- Nonlinear Analysis Series A: Theory, Methods & Applications.
- Reviews in Mathematical Physics.
- Revista Matematica Iberoamericana.
- Stochastic processes and their applications.
- Semigroup Forum.
- SIAM Journal on Discrete Mathematics.
- The Philosophical Magazine.
- Topology and its applications.
- Transactions of the American Mathematical Society.

Teaching Experience

Analysis I (4 hours teaching + 2 hours exercises), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2016/2017.

Dirichlet forms (2 + 0), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2016/2017.

Spektraltheorie (4 + 2 hours), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2016.

Höhere Analysis II (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2015 / 2016.

C-Algebras* (4 + 0), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2015 / 2016.

Höhere Analysis I (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2015.

Gewöhnliche Differentialgleichungen (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2015.

Analysis III für Mathematiker und Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2014/2015.

Spektraltheorie (2 + 0), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall 2014/2015.

Analysis II für Mathematiker und Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2014.

Ergodentheorie (4 + 0) Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2014.

Analysis I für Mathematiker und Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2013/2014.

Anwendungen von Operatortheorie (4 + 0), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2013/2014.

Mathematik für Chemiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2012/2013.

Dirichletformen (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2012/2013.

Gewöhnliche Differentialgleichungen (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-

Schiller Universität Jena, Spring term 2012.

Höhere Analysis I (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2012.

Aperiodische Ordnung (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2011/12.

Analysis III (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Wintersemester 2011/12.

Analysis II (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2011.

Diskrete Schrödingeroperatoren (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2011.

Analysis I (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2010/11.

C-Algebren* (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2010/11.

Gewöhnliche Differentialgleichungen (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2010.

Höhere Analysis II (3 + 1), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2010.

Analysis III für Mathematiker und Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2009/2010.

Höhere Analysis (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Wintersemester 2009/2010.

Analysis II für Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2009.

Dirichletformen Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Spring term 2009.

Analysis I für Physiker (4 + 2), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2008/2009.

C-Algebren*, (4 + 0), Fakultät für Mathematik und Informatik, Friedrich-Schiller Universität Jena, Fall term 2008/2009.

Discrete Schrödinger operators, Fakultät für Mathematik, TU Chemnitz, Spring term 2008.

Dynamical systems (3 + 0), Dept. of Mathematics, Rice University, Houston, Fall term 2007.

Analysis II (4 + 2), Fakultät für Mathematik, TU Chemnitz, Chemnitz, Spring term 2007.

Analysis I (4 + 2), Fall term 2006/2007, Fakultät für Mathematik, TU Chemnitz.

Higher functional analysis (3 + 1), Spring term 2006, Fakultät für Mathematik, TU Chemnitz.

Functional analysis (4 + 2), Fall term 2005/2006, Fakultät für Mathematik, TU Chemnitz .

Ordinary differential equations(3 + 1), Spring term 2005, Fakultät für Mathematik, TU Chemnitz.

Analysis III(4 + 2), Fall term 2004/2005, Fakultät für Mathematik, TU Chemnitz.

Theory of distributions (2 + 0), Spring term 2004, Fakultät für Mathematik, TU Chemnitz.

Introduction into C^ -algebras* (2 + 0), Spring term 2003, Fakultät für Mathematik, TU Chemnitz3.

Ergodic theory (2 + 0), summer term 2002, Fakultät für Mathematik, TU Chemnitz.

Supervision

Currently, I am advisor to three PhD students and two master students. Moreover, I am involved as co-advisor to two further PhD students in the group of Matthias Keller, Potsdam.¹ The corresponding PhD students and projects are the following:

Melchior Wirth: Topic concerns gradient flows for non-local Dirichlet forms - ongoing.

Daniel Sell: Topic concerns spectral theory of self-similar groups - ongoing.

Marcel Schmidt: Topic concerns global properties of Dirichlet forms - defense scheduled May 2017.

Michael Schwarz: Topic concerns boundaries of Dirichlet spaces - ongoing (co-advisor with Matthias Keller).

Florentin Münch: Topic heat flows and curvature on graphs - ongoing (co-advisor with Matthias Keller).

PhD theses

Siegfried Beckus: *Spectral approximation of periodic Schrödinger operators*, Friedrich-Schiller-Universität Jena, October 2016.

Felix Pogorzelski: *Banach space-valued ergodic theorems and spectral approximation*, Friedrich-Schiller-Universität Jena, October 2014.

Sebastian Haeseler: *Analysis of Dirichlet forms on graphs*, Friedrich-Schiller-Universität Jena, November 2013.

Daniel Wingert: *Evolutionsgleichungen und obere Abschätzungen an die Lösungen des Anfangswertproblems*, TU Chemnitz, July 2012; first supervisor Prof. Dr. Peter Stollmann, TU Chemnitz.

Carsten Schubert: *Quantengraphen mit zufälligem Potential*, TU Chemnitz, December 2011; first supervisor Prof. Dr. Peter Stollmann, TU Chemnitz.

Matthias Keller: *On the Spectral Theory of Operators on Trees*, Friedrich-Schiller Universität Jena, December 2010.

Adnene Besbes: *Ergodic Theorems on Tilings and Applications to Lattice Gas Theory*, Université Paris 7, July 2008; joint supervision with Prof. Dr. Anne Boutet de Monvel, Université Paris 7.

¹Matthias Keller was PhD student and postdoc with me.

Steffen Klassert: *Spektraltheoretische Untersuchungen von zufälligen Operatoren auf Delone-Mengen*, TU Chemnitz, May 2007 joint supervision with Prof. Dr. Peter Stollmann, TU Chemnitz.

Master and diploma theses

Michael Schwarz: *Boundary Representation of Dirichlet Forms on Discrete Spaces*, Master thesis, Friedrich-Schiller-Universität Jena, November 2015.

Melchior Wirth: *Uniqueness of form extensions and domination of semigroups*, Master thesis, Friedrich-Schiller-Universität Jena, October 2015.

Daniel Sell: *Topological Groupoids and Matuis Spatial Realization Theorem*, Master thesis, Friedrich-Schiller-Universität Jena, September 2015.

Jannis Koberstein: *Surjectivity of graph Laplacians*, Master thesis, Friedrich-Schiller-Universität Jena, November 2015.

Florentin Münch: *Li-Yau inequalities on finite graphs*, Master thesis, Friedrich-Schiller-Universität Jena, October 2014; joint supervision with Matthias Keller.

Siegfried Beckus: *Generalized Bloch Theory for Quasicrystals*, Diploma thesis, Friedrich-Schiller-Universität Jena, March 2012.

Marcel Schmidt: *Global properties of Dirichlet forms on discrete spaces*, Diploma thesis, Friedrich-Schiller-Universität Jena, October 2011.

Felix Pogorzelski: *Ergodic Theorems on amenable groups*, Diploma thesis, Eberhard Karls Universität Tübingen, September 2010; joint supervision with Prof. Dr. Rainer Nagel, Tübingen.

Carsten Schubert: *Laplace-Operatoren auf Quantengraphen*, Diploma thesis TU Chemnitz, November 2006; joint supervision with Prof. Dr. Peter Stollmann, TU Chemnitz.

Matthias Keller: *Produkte zufälliger Matrizen und der Lyapunov-Exponent*, Diploma thesis, TU Chemnitz, June 2006; joint supervision with Prof. Dr. Peter Stollmann, TU Chemnitz.

Bachelor theses

Ian Zimmermann: *Spectral distances on graphs*, Friedrich-Schiller-Universität Jena, February 2017.

Adrian Martz: *Quasicrystals and almost periodic patterns*, Friedrich-Schiller-Universität Jena, January 2017.

Julian Lenz: *On Barry Simon's subshift conjecture*, Friedrich-Schiller-Universität Jena, November 2016.

Julian Weigt: *Measurable equidecompositions*, Friedrich-Schiller-Universität Jena, December 2015.

Jula McGibbon: *Spektraltheorie irreduzibler Operatoren*, Friedrich-Schiller-Universität Jena, August 2014.

Franziska Sieron: *Die Balanciertheitseigenschaft primitiver Substitutionen*, Friedrich-Schiller-Universität Jena, May 2014.

Jannis Koberstein: *Integraldarstellung von Halbgruppen auf L^p* , Friedrich-Schiller-Universität Jena, December 2013.

Frank Nußbaum: *Construction of Markov processes on graphs and the Feynman-Kac formula*, Friedrich-Schiller-Universität Jena, November 2013.

Oliver Siebert: *Spectra of lamplighter random walks associated with percolation*, Friedrich-Schiller-Universität Jena, September 2013.

Melchior Wirth: *Does diffusion determine the graph structure?*, Friedrich-Schiller-Universität Jena, August 2013.

Florentin Münch: *Ultrametrische Cantormengen und Ränder von Bäumen*, Friedrich-Schiller-Universität Jena, October 2012.

Danilo Zille: *Dimensionen von von-Neumann-Algebren*, Friedrich-Schiller-Universität Jena, September 2010.

Collaborators during the last 5 years²

- Jean-Baptiste Aujogue, Lyon.
- Michael Baake, Bielefeld,
- Marcy Barge, Bozeman.
- Siegfried Beckus, Jena.
- Michael Boshernitzan, Rice University, Houston.
- Anne Boutet de Monvel, Paris.
- Aernout van Enter, Groningen.
- Rupert Frank, Caltech.
- Agelos Georgakopoulos, Warwick.
- Rostislav Grigorchuk, Texas A&M, College Station.
- Sebastian Haeseler, Jena.
- Xueping Huang, Jena.
- Johannes Kellendonk, Lyon.
- Matthias Keller, Jena.
- Ganna Kudryavtseva, Ljubljana.
- Mark Lawson, Edinburgh.
- Marko Lindner, Hamburg-Harburg.
- Jun Masamune, Sendai.
- Florentin Münch, Jena.
- Robert V. Moody, Victoria, Canada.
- Tatiana Nagnibeda, Geneva.
- Konstantin Pankrashkin, Orsay.
- Felix Pogorzelski, Jena.
- Pedro Resende, Lisbon.
- Jean Savienien, Metz.
- Fabian Schwarzenberger, Chemnitz.

²We indicate the affiliation of the collaborator at the time of collaboration.

- Christian Seifert, Hamburg-Hamburg.
- Peter Stollmann, Chemnitz.
- Gunter Stolz, Birmingham (Alabama).
- Nicolae Strungaru, Edmonton.
- Andras Telcs, Budapest.
- Alexander Teplyaev, Stors.
- Ivan Veselic, Chemnitz.
- Henrik Vogt, Clausthal.
- Simone Warzel, München.
- Daniel Wingert, Chemnitz.
- Radek Wojciechowski, New York.

Research Stays - Selection

Prof. Dr. T. Nagnibeda, Geneva, March / April 2016.

Semester programm *Analytic and Geometric Aspects of Probability on Graphs* at Bernoulli center Lausanne, September 2015.

Prof. Dr. T. Nagnibeda, Geneva, March / April 2015.

Prof. Dr. T. Nagnibeda, Geneva, December 2014.

Prof. Dr. W. Woess, Prof Dr. J. Behrndt, TU Graz, Graz September 2014.

Research in groups at ICMS (with M. Lawson, P. Resende, G. Kudryavtseva), Edinburgh, (3 weeks) July 2014.

Prof. Dr. J. Kellendonk, Lyon, and Prof. Dr. T. Nagnibeda, Geneva, spring and summer 2013 (sabbatical).

Prof. Dr. Grigoryan, Bielefeld, (1 week) July 2012.

Prof. Dr. S. Margolis, Jerusalem (1 week) May 2011.

Dr. Tobias Jaeger, Dresden (1 week) May 2011.

Prof. Dr. R.V. Moody, Victoria (2 weeks) March 2011.

Dr. M. Lawson, Edinburgh, (1 week) March 2010.

Prof. Dr. E. Pelantova, Prague (1 week) August 2009.

Prof. Dr. F. Germinet, Cergy-Pontoise (1 week) May 2009.

Prof. Dr. S. Warzel, Princeton, (1 week) May 2008.

Prof. Dr. R. V. Moody, Victoria, (1 week) May 2008.

Prof. Dr. R. Johnson, Florenz, (1 week) April 2007.

Prof. Dr. M. Baake, Bielefeld, (1 week) March 2007.

Prof. Dr. R. V. Moody, Victoria, (1 week) February 2007.

Prof. Dr. M. Aizenman, Princeton, (1 week), February 2007.

Prof. Dr. W. Woess, Graz (1 week) April 2005, supported by European Science Foundation.

Prof. Dr. Günter Stolz, Birmingham, Alabama, (1 week) August 2005.

Dr. David Damanik, California Institute of Technology, Pasadena, August 2005.

PD. Dr. C. Richard, Bielefeld, (1 week) September 2004.

Prof. Dr. Günter Stolz, Birmingham, Alabama, (1 week) August 2004.

Prof. Dr. Boris Solomyak, (1 week) August 2004.

Prof. Dr. Günter Stolz, Birmingham, Alabama, (1 week) October 2003.

Banff International Research Station: joint research with Prof. Dr. Robert Moody, Edmonton, and Prof. Dr. Michael Baake, Greifswald. (2 weeks) June 2003.

Prof. Dr. J. M. Gambaudo, Université de Bourgogne, Dijon, (1 week) March 2003.

Prof. Dr. R. Seiler, TU Berlin, (1 week) May 2002.

Prof. Dr. W. Kirsch, Ruhr-Universität Bochum, (2 weeks), February / March 2002.

Prof. Dr. A. Boutet de Monvel, Université Paris 7 (1 week) November 2001.

Scheme 2 - Visitors - Grant of the London Mathematical Society: Dr. J. Kellendonk, Cardiff; Dr. M. V. Lawson, Bangor; Dr. J. R. Hunton, Leicester (2 weeks) September/October 2001.

Prof. Dr. W. Kirsch, Ruhr-Universität Bochum, (1 week) November, 2000.

Invitation to Conferences - Selection

Workshop *Applications of operator algebras: order, disorder and symmetry*, ICMS Meeting, Edinburgh, June 2017, to come.

6th Conference on Analysis, Probability and Mathematical Physics on Fractals, Cornell University Mathematics Department, June 13-17, 2017 (declined).

Curvatures of Graphs, Simplicial Complexes and Metric Spaces Workshop at Tsinghua Sanya International Mathematics Forum (TSIMF) March, 2017 (declined).

Operator Semigroups in Analysis: Modern Developments, Bedlewo April 2017 (declined).

Mini course CIMPA fall school *Théorie spectrale des graphes et des variétés*, Kairouan, November 2016 (declined).

Mini course at Summer school *Spectral Theory, Differential Equations and Probability*, Mainz, September 2016 (declined).

Workshop *Heat Kernels and Analysis on Manifolds and Fractals*, Bielefeld, July 2016.

Mini course at summer school *Transversal aspects of tilings*, Oleron, June 2016.

Conference *Spectrum of random graphs*, CIRM, Luminy, January 2016 (declined).

Conference *Dynamical Systems for Aperiodicity*, Lyon, January 2016.

Workshop *Spectral Theory of Aperiodic Systems*, Heinrich-Fabri-Institut, Blaubeuren, June 2015.

Workshop *Form methods for evolution equations and applications* (18th Internet Seminar), Heinrich-Fabri-Institut, Blaubeuren, June 2015.

Workshop *Aperiodic order and signal analysis*, Trondheim, June 2015 (declined).

Conference *Random walks on graphs and potential theory*, Warwick, May 2015.

Mini-Workshop *Discrete p -Laplacians: Spectral Theory and Variational Methods in Mathematics and Computer Science*, February 2015.

Workshop on *Aperiodic Order*, Leicester, January 2015 (declined).

Spectral Theory and Weyl Functions, MFO, January 2015 (declined).

Mini-Workshop: *Dynamical versus diffraction spectra in the theory of quasicrystals*, MFO, December 2014.

Groups, graphs and random walks, Cortona, June 2014.

Mathematical Physics of Disordered Systems - A conference in honor of Leonid Pastur, Hagen, May 2013.

Edinburgh Workshop on *Semigroup Representations 2013*, April 2013.

Asymptotic analysis and spectral theory on non-compact structures, Mainz, September 2012

Miniworkshop *Boundary value Problems and Spectral Geometry* at Mathematisches Forschungsinstitut Oberwolfach (MFO), January 2012.

PISRS Meeting, November 2012 (main speaker).

Journée théorie spectrale, Bordeaux, November 2011 (declined).

Recent Trends in Differential Equations, Bielefeld, November 2011.

Mathematical Physics, Spectral Theory and Stochastic Analysis, Goslar, September 2011 (declined).

Analysis, Probability and Mathematical Physics on Fractals at Cornell, September 10-13, 2011.

Session in *Aperiodic Order* at the CMS Summer Meeting in June 2011.

Challenges in aperiodic media (Conference honoring Jean Bellissard's 65th birthday), Lyon, March 2011.

The Mathematics of Aperiodic Order, KIAS, Seoul, September 2010.

Penn State - Göttingen International Summer Schools in Mathematics, University Park, State College, August 2010 (lecturer mini-course).

Analysis on graphs and applications - Follow up meeting, Isaac Newton Institute Cambridge, July 2010.

Random Schrödinger Operators, Centre interfacultaire Bernoulli, Lausanne, June 2010.

Workshop *Aperiodic order*, Leicester, September 2009.

Workshop *Random Schrödinger operators*, BIRS, Banff, May 2009.

AIMS' Seventh International Conference, Arlington Texas, Special session on *Dynamical Systems and Spectral Theory* and Special session on *Non autonomous dynamical systems and applications*, May 2008.

Disordered Systems: Random Schrödinger Operators and Random Matrices, Mathematisches Forschungsinstitut Oberwolfach (MFO), March 2008.

Quasicrystals - The Silver Jubilee, Tel Aviv, October 2007 (main speaker).

Probability and Ergodic Theory Workshop, Chapel Hill, February 2007.

Partial Differential Equations and Spectral Theory - Agmonfest, The Hebrew University, Jerusalem, January/February 2007.

Aspects of Spectral Theory, January 2006 Erwin Schrödinger Institute, Wien.

Dynamics of Complex Quantum Systems, Weizmann Institute of Science and Technion, December 2005 (main speaker).

Summer School in *Aperiodic Order*, Victoria, August 2005 (main speaker).

Spectral Analysis of Differential and Difference Operators, special session joint meeting of AMS, DMV, ÖMG at Mainz, June 2005.

MASCOS Workshop on Algebraic Dynamics, Sydney, February, 2005 (main speaker).

Spectral Theory of Schroedinger Operators, CRM, Montreal, July 2004.

Aperiodic Order: Dynamical Systems, Combinatorics, and Operators, Banff International Research Station, May 2004, (main speaker).

Mathematics and Physics of Disordered Systems, MFO, May 2004.

Workshop *Mathematics of Aperiodic Order*, Greifswald, August 2003.

GAMM 2003, Section *Applied analysis*, Abano Terme, Italy, March 2003.

Meeting *Problèmes ouverts dans la théorie des quasi-cristaux*, CIRM, Luminy, France, October 2002.

Workshop *Aperiodic order, dynamical systems, operator algebras*, Victoria, Kanada, August 2002.

Meeting *Aspects mathématiques des systèmes aléatoires et de la mécanique statistique*, CIRM, Luminy, May 2002.

Schwerpunktkolloquium *Interagierende stochastische Systeme von hoher Komplexität*, WIAS, Berlin, January 2002.

Workshop *Geometrical and Spectral Aspects of Perfect and Random Structures*, Ernst-Moritz-Arnd Universität, Greifswald, July 2001.

Conference *Complex Analysis & Dynamical Systems*, ORT Braude College (Karmiel) and the Emmy Noether Research Institute at Bar-Ilan University (Ramat-Gan), June 2001.

Workshop *Quasicrystals*, MFO, May 2001.

Workshop *Ungeordnete Systeme*, Ruhr-Universität Bochum, October 2000.

Seminars and Kolloquia - Selection

Seminar Michael Baake and Kai-Uwe Bux, Bielefeld, Mai 2016.

Strasbourg Analysis Seminar, Strasbourg, April 2016.

Séminaire 'Groupes et Géométrie', Genf, March 2016.

Séminaire 'Groupes et Géométrie', Genf, December 2014.

Mathematisches Kolloquium, TU Clausthal, November 2014

Seminar Analysis, Stochastik und Mathematische Physik, Chemnitz, May 2014

Ulmer Mathematisches Kolloquium, Ulm, May 2014.

Groups and Analysis Seminar, Neuchâtel, March 2014.

Dresdner Mathematisches Seminar, Dresden, December 2013.

Séminaire de Physique Mathématique, Lyon, October 2013.

Séminaire 'Groupes et Géométrie', Genf, September 2013.

Seminar Angewandte Analysis, Hamburg-Harburg, May 2013.

Mathematisches Kolloquium, Bremen, May 2013.

Kolloquium Graduiertenkolleg Mathematische Strukturen in der modernen Quantenphysik, Göttingen, December 2012.

Oberseminar Stochastik, Bonn, July 2012.

AG Stochastik und dynamische Systeme, Erlangen, February 2012.

Seminar Mathematische Physik, Bielefeld, January 2012.

Mathematics Seminar, McEwan, Edmonton, September 2011.

Graduate Center New York (CUNY), Geometry Seminar, September 2011.

Promotionskolloquium, Ulm June 2011.

Mathematics seminar, Bar Ilan University, May 2011.

Stochastics Seminar, Dresden, May 2011.

Analysis Seminar, Hebrew University, May 2011.

Seminar Stolz, Birmingham (Alabama), March 2011.

Geometric Analysis Seminar, Berlin, January 2011.

Analysis Seminar, Rice University, August 2010.

Mathematisches Kolloquium TU Ilmenau, May 2010.

Seminar Pelantova, Prag, April 2010.

Stochastik Kolloquium, Jena, January 2010.

Kolloquium Mathematik Clausthal, October 2009.

Seminar Prof. J. Kellendonk, Lyon, October 2009.

Seminar A. Boutet de Monvel, Paris October 2009.

Seminar Prof Helffer, Orsay, October 2009.

Seminar Durand, Amiens, October 2009.

Seminar Mathematische Physik, TU Chemnitz, June 2009.

Seminar Prof. S. Warzel u. Prof. P. Müller, TU München/LMU München, May 2009.

Analysis and Geometry Seminar, Rice University, Houston, March, 2009.

Seminar Prof. E. Pelantova, Prag, February 2009.

Kolloquium des Fachbereich Mathematik der Universität Mainz, January 2009.

Seminar Theoretisch-Physikalisches Institut, Jena, Januar 2009.

Kolloquium des Fachbereichs Mathematik und Informatik der Philipps-Universität Marburg, February 2008.

PDEs, Mathematical Physics and Harmonic Analysis Seminar, Texas A & M, College Station, March 2008

Geometry-Analysis Seminar, Rice University, January 2008.

Geometry-Analysis Seminar, Rice University, September 2007.

Kolloquium des Mathematischen Institut, Universität Göttingen, July 2007.

Seminar Prof. Dr. M. Baake, Bielefeld, March 2007.

Operator Algebra Seminar, Victoria, Kanada, February 2007.

Mathematical Physics Seminar, Princeton, February 2007.

Mathematisches Kolloquium, Universität Karlsruhe, January 2007.

Mathematisches Kolloquium, Universität Erlangen-Nürnberg, June 2006

Mathematisches Kolloquium, KU Eichstätt, June, 2006.

Kolloquium des Graduiertenkolleg “Gruppen und Geometrie”, Göttingen, May 2006.

Strukturtheorie-Seminar, TU Graz, April 2006.

Mathematical Physics Seminar, Caltech, Pasadena, March 2006.

Seminaire d'Analyse et Topologie, Lyon, December 2005.

Mathematical Physics Seminar, UAB, Birmingham, Alabama, August 2005.

Mathematical Physics Seminar, Caltech, Pasadena, September 2005.

Mathematisches Kolloquium, Universität Wien, May 2005.

Seminar Prof. Dr. M. Schreiber, Institut für Physik, TU Chemnitz, April 2005.

Mathematisches Kolloquium, University of Queensland, February 2005.

Mathematisches Kolloquium, TU Chemnitz, October 2004.

Mathematical Physics Seminar, UAB, Birmingham, Alabama, August 2004.

Rainwater Seminar, UW, Seattle, August 2004.

Physikalisches Kolloquium, TU Chemnitz, May 2004.

Mathematisches Kolloquium, Universität Konstanz, October 2003.

Mathematical Physics Seminar, UAB, Birmingham, Alabama, October 2003.

Mathematical Physics Seminar, Caltech, Pasadena, September 2003.

Erwin Schrödinger Institut, Wien, January 2003.

AG Stochastik und dynamische Systeme (invited by Prof. Dr. A. Knauf), Friedrich-Alexander-Universität Erlangen-Nürnberg, November 2002.

Seminar Prof. Dr. R. Seiler, TU Berlin, May 2002.

Seminar Prof. Dr. S. Jitomirskaya, UC Irvine, March 2002.

Seminar Prof. Dr. W. Kirsch, Ruhr-Universität Bochum, March 2002.

Seminar SFB 237 (invited by Prof. Dr. G. Knieper), Ruhr-Universität Bochum, February 2002.

Seminar Prof. Dr. A. Boutet de Monvel, Université Paris 7, November 2001.

Seminar Prof. Dr. D. E. Evans, Cardiff University, October 2001.

Pure Mathematics Seminar, University of Leicester, September 2001.

Horowitz Seminar, Tel Aviv University, Tel Aviv, June, 2001.

Seminar Prof. Dr. M. Ben-Artzi, Hebrew University, Jerusalem, May 2001.

Seminar Prof. Dr. H. Furstenberg, B. Weiss, Hebrew University, Jerusalem, May 2001.

Seminar PD Dr. M. Baake, Eberhard-Karls-Universität Tübingen, December 2000.

Seminar Prof. Dr. W. Kirsch, Ruhr-Universität Bochum, November 2000.

Seminar PD Dr. M. Baake, Eberhard-Karls-Universität Tübingen, April 2000.

Seminar Prof. Dr. M. Schreiber, TU Chemnitz, December 1999.

Publications - Daniel Lenz

- Diffusion on Delone sets (with Sebastian Haeseler, Xuping Huang, Felix Pogorzelski), to appear in: *Journal of Statistical Physics*.
- Stationary processes with pure point diffraction (with Robert V. Moody), to appear in: *Ergodic Theory & Dynamical Systems*.
- Toeplitz flows and model sets (with Michael Baake, Tobias Jaeger), *Bull. London Math. Soc.* 48 (2016), 691–698. (1511.08595).
- Schreier graphs of Grigorchuk’s group and a subshift associated to a non-primitive Substitution (with Rostislav Grigorchuk, Tatiana Nagnibeda), to appear in: Groups, Graphs and Random Walks, T. Ceccherini-Silberstein, M. Salvatori, E. Sava-Huss, (Eds), London Math. Soc. Lecture Note Series, Cambridge University Press (2017), (1510.00545).
- Note on short time behavior of semigroups associated to selfadjoint Operators (with Matthias Keller, Florentin Münch, Marcel Schmidt, Andras Telcs), *Bull. London Math. Soc.* 48 (2016), 935–944. (1509.01993).
- Invariant means on Boolean inverse monoids (with Ganna Kudryavtseva, Mark Lawson, Pedro Resende), *Semigroup Forum* 92 (2016), 77–101. (1503.03733).
- Note on the set of Bragg peaks with high intensity (with Nicolae Strungaru), *Ann. Henri Poincaré* 17 (2016), 673–687. (1412.7377).
- Note on spectra of non-selfadjoint operators over dynamical systems (with Siegfried Beckus, Marko Lindner, Christian Seifert), to appear in: *Proc. Edinburgh Math. Soc.* (1412.5926).
- Note on uniformly transient graphs (with Matthias Keller, Marcel Schmidt, Radek Wojciechowski), to appear in: *Revista Iberoamericana* (1412.0815).
- Equicontinuous factors, Proximity and Ellis semigroup for Delone sets (with Jean-Baptiste Aujogue, Marcy Barge, Johannes Kellendonk), in: Mathematics of Aperiodic Order (eds. J. Kellendonk, D. Lenz, J. Savinien), Progress in Mathematics 309, Birkhaeuser, (1407.1787).
- Diffusion determines the recurrent graph (with Matthias Keller, Marcel Schmidt, Melchior Wirth), *Advances in Mathematics* 269 (2015), 364–398
- Expansion in generalized eigenfunctions for Laplacians on graphs and metric measure spaces (with Alexander Teplyaev), *Trans. Amer. Math. Soc.* 368 (2016), 4933–4956.
- Graphs of finite measure (with Agelos Georgakopoulos, Sebastian Haeseler, Matthias Keller, Radek Wojciechowski), *J. Math. Pure Appl.* 103 (2015), 1093–1131.
- Zero measure Cantor spectra for continuum one-dimensional quasicrystals (with Christian Seifert, Peter Stollmann), *J. Diff. Eqn.* 256 (2014), 1905–1926. (1308.3431)
- Dynamical versus diffraction spectrum for structures with finite local complexity (with Michael Baake, Aernout van Enter), *Ergodic Theory & Dynamical Systems* 35 (2015), 2017–241.

- Unbounded quantum graphs with unbounded boundary conditions (with Carsten Schubert and Ivan Veselic), *Math. Nachr. Math. Nachr.* 287 (2014), 962–979. (1205.1944)
- Delone sets with finite local complexity: Linear repetitivity versus positivity of weights (with Adnene Besbes, Michael Boshernitzan), *Discrete and Computational Geometry* 49 (2013), 335–347. (1202.6023)
- A characterization of subshifts with bounded powers (with Johannes Kellendonk and Jean Savinien), *Disc. Math.* 313 (2013), 2881–2894. (1111.1609)
- Absolutely continuous spectrum for random operators on trees of finite cone type (with Matthias Keller and Simone Warzel), *Journal d'Analyse Mathématique*, 118 (2012), 363–396. (1108.0057)
- Pseudogroups and their étale groupoids (with Mark V. Lawson), *Advances in Mathematics* 244 (2013), 117–170. (1107.5511)
- Equicontinuous Delone dynamical systems (with Johannes Kellendonk), *Canadian Journal of Mathematics* 65 (2013), 149–170. (1105.3855)
- Volume Growth, Spectrum and Stochastic Completeness of Infinite Graphs (with Matthias Keller, Radosław Wojciechowski), *Mathematische Zeitschrift*, 274 (2013), 905–932. (1105.0395). (1105.0395)
- Laplacians on infinite graphs: Dirichlet and Neumann boundary conditions (with Sebastian Haeseler, Matthias Keller, Radosław Wojciechowski), *Journal of Spectral Theory* 2 (2012), 397–432. (1103.3695)
- Unbounded Laplacians on Graphs: Basic Spectral Properties and the Heat Equation (with Matthias Keller), *Math. Model. Nat. Phenom.* 5 (2010), 198–224. (1101.2979)
- Note on basic features of large time behaviour of heat kernels (with Matthias Keller, Hendrik Vogt, Radosław Wojciechowski), *J. reine und angewandte Mathematik (Crelles Journal)* **708** (2015), 73–95. (1101.0373)
- Intrinsic metrics for non-local symmetric Dirichlet forms and applications to spectral theory (with Rupert Frank, Daniel Wingert), *Journal of Functional Analysis* 266 (2014), 4765–4808. (1012.5050)
- L^p approximation of the integrated density of states for Schrödinger operators with finite local complexity (with Michael Gruber, Ivan Veselic), *Integr. Equ. Oper. Theory* 69, (2011), 217–232. (1004.3471)
- A Banach space valued ergodic theorem and uniform approximation of the integrated density of states (with Fabian Schwarzenberger, Ivan Veselic), *Geometriae Dedicata* 150 (2011), 1–34. (1003.3620), Erratum: *Geometriae Dedicata* 159 (2012), 411–413.
- Delone measures of finite local complexity and applications to spectral theory of one-dimensional continuum models of quasicrystals (with Steffen Klassert, Peter Stollmann), *DCDS - A* 29 (2011), 1553–1571 (1003.3574)

- On the spectral theory of trees with finite forward cone type (with Matthias Keller, Simone Warzel), *Israel Journal of Mathematics*, 194 (2013), 107–135. (1001.3600)
- Note on powers in three interval exchange transformations (with Zuzana Masakova, Edita Pelantova), *Theoret. Comput. Sci.* 412 (2011), 3788–3794. (0909.1109)
- Generalized eigenfunctions and spectral theory for strongly local Dirichlet forms (with Peter Stollmann, Ivan Veselić), *Oper. Theory Adv. Appl.* 214 (2011), 83–106. (0909.1107)
- An uncertainty principle, Wegner estimates and localization near fluctuation boundaries (with Anne Boutet de Monvel, Peter Stollmann), *Mathematische Zeitschrift* 269 (2011), 663–670. (0905.2845)
- Dirichlet forms and stochastic completeness of graphs and subgraphs (with Matthias Keller), *J. reine angew. Math. (Crelles Journal)* 666 (2012), 189–223. (0904.2985)
- Compactness of Schrodinger semigroups, (with Peter Stollmann, Daniel Wingert), *Math. Nachrichten* 283 (2010), 94–103. (0903.0280)
- Continuity of the integrated density of states on random length metric graphs, (with Norbert Peyerimhoff, Olaf Post, Ivan Veselić), *Mathematical Physics, Analysis and Geometry* 12 (2009), 219–254. (0811.4513)
- The Allegretto-Piepenbrink Theorem for strongly local forms (with Peter Stollmann, Ivan Veselić), *Documenta Mathematica* 14 (2009), 167–189. (0811.2135)
- Extinctions and correlations for uniformly discrete point processes with pure point spectrum (with Robert V. Moody), *Commun. Math. Phys.* 289, (2009), 907–923. (0902.0567)
- Aperiodic order and pure point diffraction, *The Philosophical Magazine*, 88 (2008), 2059–2071 (Special Issue: Quasicrystals: the silver jubilee)
- Eigenfunction expansion for Schrodinger operators on metric graphs (with Carsten Schubert, Peter Stollmann), *Integral Equations and Operator Theory* 62 (2008), 541–553.
- Aperiodic order via dynamical systems: Diffraction theory for sets with finite local complexity, *Contemp. Math.* 485 (Ergodic Theory, Idris Assani, ed), (2009), 91–112.
- Hamiltonians on discrete structures: Jumps of the integrated density of states (with Ivan Veselić), *Mathematische Zeitschrift* 263 (2009), 813–835.
- Pure point spectrum for measure dynamical systems on locally compact Abelian groups (with Nicolae Strungaru), *J. Math. Pures Appl.* 92 (2009), 323–341.
- Continuity of eigenfunctions of uniquely ergodic dynamical systems and intensity of Bragg peaks, *Commun. Math. Phys.* 287 (2009), 225–258.
- Uniform existence of the integrated density of states for models on \mathbb{Z}^d (with Peter Müller und Ivan Veselić), *Positivity* 12 (2008), 571 - 589.

- Continuity properties of the integrated density of states on manifolds (with Norbert Peyerimhoff, Olaf Post, Ivan Veselić), *Japanese Journal of Mathematics* 3 (2008), 121–161.
- Sch'nol's Theorem for Strongly Local Forms (with Anne Boutet de Monvel, Peter Stollmann), *Israel Journal of Mathematics* 173 (2009), 189–211. (0708.1501)
- Uniform existence of the integrated density of states for random Schrödinger operators on metric graphs (with Michael Gruber, Ivan Veselić), *J. Funct. Anal.* 253, (2007), 515–533.
- Pure point diffraction implies zero entropy for Delone sets with uniform cluster frequencies (with Michael Baake, Christoph Richard), *Lett. Math. Phys.* 82, (2007), 61–77.
- Pure point diffraction and cut-and-project schemes for measures: The smooth case (with Christoph Richard), *Math. Z.* 256, (2007), 347–378.
- On an order based construction of a groupoid from an inverse semigroup, *Proc. Edinburgh Math. Soc.* 51 (2008), 387–406.
- Characterization of model sets by dynamical systems, (with Michael Baake und Robert V. Moody), *Ergodic Theory & Dynamical Systems* 27, (2007), 341–382.
- Uniform Szegő Cocycles Over Strictly Ergodic Subshifts, (with David Damanik), *Journal of Approximation Theory* 144, (2007), 133–138.
- Generic subsets in spaces of measures and singular continuous spectrum (with Peter Stollmann), Proceedings of QMath9, Lecture Notes in Physics 690, Springer (2006).
- Lower transport bounds for one-dimensional continuum Schrödinger operators (with David Damanik und Günter Stolz), *Mathematische Annalen* 336, (2006), 361–389.
- Zero measure Cantor spectrum for Schrödinger operators with low-complexity potentials (with David Damanik), *Journal de Mathématiques Pures et Appliquées* (9), 85 (2006), 671–686
- A condition of Boshernitzan and uniform convergence in the multiplicative ergodic theorem (with David Damanik), *Duke Math. J.* 133, (2006), 95–123.
- An ergodic theorem for Delone dynamical systems and existence of the integrated density of states (with Peter Stollmann), *Journal d'Analyse Mathématique* 97, (2006), 1–23.
- Generic sets in spaces of measures and generic singular continuous spectrum for Delone Hamiltonians (with Peter Stollmann), *Duke Math. J.* 131, (2006), 203–217.
- Discrete Laplacians on planar graphs: Unique continuation for eigenfunctions and curvature, (with Steffen Klassert, Norbert Peyerimhoff und Peter Stollmann), *Proc. Amer. Math. Soc.* 134, (2006), 1549–1559.
- Groupoids, von Neumann Algebras and the Integrated Density of States (with Norbert Peyerimhoff and Ivan Veselić), *Mathematical Physics, Analysis and Geometry* 10, (2007), 1–41.
- Substitution dynamical systems: Characterization of linear repetitivity and applications (with David Damanik), *Journal of Mathematical Analysis and Applications* 321, (2006), 766–780.

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- Singular continuous spectrum for certain quasicrystal Schrödinger operators, *Contemporary Mathematics* 364 (2004), 169–179.
- Dynamical systems on translation bounded measures: Pure point dynamical and diffraction spectra (with Michael Baake), *Ergodic Theory & Dynamical Systems* 24, (2004), 1867–1893.
- Half-line eigenfunction estimates and singular continuous spectrum of zero Lebesgue measure (with David Damanik), *Forum Mathematicum*, 16, (2004), 109–128.
- Integrated density of states for random metrics on manifolds (with Norbert Peyerimhoff und Ivan Veselić), *Proceedings of the London Mathematical Society*, 88 (2004), 733–752.
- Aperiodic linearly repetitive Delone sets are densely repetitive, *Discrete and Computational Geometry*, 31 (2004), 323–326.
- Existence of non-uniform cocycles on uniquely ergodic systems, *Annales de l'Institut Henri Poincaré, Probabilités et Statistiques*, 40 (2004), 197–206.
- Delone dynamical systems: ergodic features and applications (with Steffen Klassert and Peter Stollmann). *Quasicrystals, Structure and Physical Properties*, 172–187, Wiley-VCH, Berlin, 2003.
- Random Schrödinger operators on manifolds (with Norbert Peyerimhoff and Ivan Veselić), *Markov Processes and Related Fields*, 9 (2003), 717–728.
- Hierarchical structures in Sturmian dynamical systems. Tilings of the plane. *Theoret. Comput. Sci.* 303 (2003), 463–490.
- Aperiodic order and Quasicrystals: Spectral Properties (with Peter Stollmann), *Annales Henri Poincaré*, 4, suppl 2 (2003).
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- Discontinuities of the integrated density of states for random operators on Delone sets (with Steffen Klassert und Peter Stollmann), *Commun. Math. Phys.* 241 (2003), 235–243.
- Powers in Sturmian sequences (with David Damanik), *European Journal of Combinatorics*, 24 (2003), 377–390.
- Uniform spectral properties of one-dimensional quasicrystals, IV. Quasi-Sturmian potentials (with David Damanik), *Journal d'Analyse Mathématique*, 90 (2003), 115–139.
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- Quasicrystals, aperiodic order, and groupoid von Neumann algebras (with Peter Stollmann), *C. R. Acad. Sci. Ser. I*, 334, (2002), 1131–1136.

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- Uniform ergodic theorems on subshifts over a finite alphabet, *Ergodic Theory & Dynamical Systems*, 22 (2002), 245–255.
- The index of Sturmian sequences (with David Damanik), *European Journal of Combinatorics*, 23 (2002), 23–29.
- Delone dynamical systems and associated random operators (with Peter Stollmann). Operator algebras and mathematical physics (Constanța, 2001), 267–285, Theta, Bucharest, 2003.
- Linear repetitivity I., Uniform subadditive ergodic theorems and applications (with David Damanik), *Discrete and Computational Geometry*, 26 (2001), 411–428.
- Uniform spectral properties of one-dimensional quasicrystals, III. α -continuity (with David Damanik und Rowan Killip), *Commun. Math. Phys.* 212 (2000), 191–204.
- Uniform spectral properties of one-dimensional quasicrystals, II. The Lyapunov exponent (with David Damanik), *Lett. Math. Phys.* 50 (1999), 245–257.
- Uniform spectral properties of one-dimensional quasicrystals, I. Absence of eigenvalues (with David Damanik), *Commun. Math. Phys.* 207 (1999), 687–696.
- Random Operators and Crossed Products, *Mathematical Physics, Analysis and Geometry*, 2, (1999), 197–220.