

Dr. Florian H. Sobieczky

CONTACT INFORMATION	Campus Box 395 Mathematics Department University of Colorado at Boulder Boulder, CO 80302, USA	<i>Voice:</i> 303-492-2312 <i>Fax:</i> 303-492-7707 <i>E-mail:</i> Florian.Sobieczky@Colorado.edu http://euclid.colorado.edu/~flso6541
RESEARCH INTERESTS	Heat kernel estimates, Random Walks, Percolation, Structure Theory of Graphs, Random Graphs, Stationary determinantal processes, Queueing Theory	
EDUCATION	Georg August University , (University of Göttingen), Germany Physics-Diploma November 1998 PhD-Thesis (in cooperation with SFB 288 at TU-Berlin): <ul style="list-style-type: none">• “On the Number of connected components of the inverse images of stationary, ergodic fields”• Advisor: Heinrich Hering (Institut for Stochastics, University of Göttingen)• Second Advisor: Hermann Schultz-Baldes (University of Erlangen-Nürnberg)	
HONORS AND AWARDS	Defense of PhD-Thesis, <i>magna cum laude</i> April 2004 Individual Research Project: FWF, Austrian Science Fund, (\$ 152600 - 3 years) October 2006	
ACADEMIC EXPERIENCE	Technical University Berlin , Berlin, Germany <i>University Assistant</i> October 1999–September 2004 Four hours per week of teaching in tutorials and core courses; first year courses include entire program of study of Mathematics for Physicists (Analysis and Linear Algebra); graduate level courses include Mathematical Physics; duties included shared administrative responsibilities with faculty instructor <i>Member of the Sonderforschungsbereich SFB 288</i> May 2001–October 2003 (“Quantum Physics and Differential Geometry”) Research with the working group D9 “Segmentation and Encoding of Complex Geometrical Objects” of Ruedi Seiler Graz University of Technology , Austria <i>Post-Doc position</i> October 2004–April 2006 in FWF-Project P15577 “Asymptotic Properties of Random Walks on Graphs” of Wolfgang Woess Interim <i>visit</i> to Bochum University (SFB/TR 12) Wintersemester 2005 “Symmetry und universality in mesoscopic systems”, in the working group of Werner Kirsch <i>Individual Research Project</i> FWF P18703 October 2006–September 2009 “Random walks on random subgraphs of transitive graphs” at Graz University of Technology University of Jena , Germany <i>University Assistant</i> October 2009 - August 2011 Four weekly hours of teaching (ODE, Analysis III); Seminars for Graduate Students on ‘Random Schrödinger Operators’, and ‘Discrete Potential Theory’; Own Lecture: ‘Orthogonal Polynomials’ University of Colorado at Boulder , USA <i>Visiting Professorship</i> August 2011 - May 2012 Four weekly hours of teaching: ‘Analysis’, and Ulam-Graduate-Probability Seminar, weekly, ”Random Walks and Orthogonal Polynomials”	
PUBLICATIONS	Florian Sobieczky: ‘An interlacing technique for spectra of random walks and its application to finite percolation clusters’, <i>Journal of Theoretical Probability</i> , Vol. 23, No. 3, (2010), 639–670 Vadim Kaimanovich, Florian Sobieczky: ‘Stochastic homogenization of horospheric tree products’, <i>Probabilistic approach to geometry</i> , 199–229, <i>Adv. Stud. Pure Math.</i> 57, Math. Soc. Japan, (2010) Florian Sobieczky, Gerhard Rappitsch, Ernst Stadlober: ‘Tandem queues for inventory management under random perturbations’, <i>Quality and Reliability Eng. Int.</i> 26(8): 899–907, (2010)	

- PHD-THESIS Florian Sobieczky: ‘Zur Anzahl der Zusammenhangskomponenten von Urbildern stationärer, ergodischer Felder’, *Mathematica Gottingensis* 4, 2004; (engl. translation: www.math.tu-graz.ac.at/~sobieczky/papers/dis)
- SUBMITTED PAPERS Florian Sobieczky: ‘Amenability of horocyclic products of percolation trees’, (2009), arXiv:0903.3140v2
 Florian Sobieczky: ‘Bounds for the annealed return probability on large finite random percolation clusters’, (2010), arXiv:0812.0117v4
- PAPERS IN PREPARATION Daniel Lenz, Florian Sobieczky, Ivan Veselić: ‘Amenability of horocyclic products of uniformly growing trees’
 Florian Sobieczky: ‘Annealed bounds for the return probability of delayed random walks on the incipient infinite cluster’
 Steven Lalley, Florian Sobieczky: ‘Recurrence of random walks and Brownian motion on growing balls with reflecting walls’
- ONGOING COLLABORATIONS
- Vadim Kaimanovich: Invariant measures on treed equivalence relations
 - Tatyana Turova: Integrated density of states for the inhomogeneous random graphs
 - Igor Krasovsky, Brian Rider: Random walks on clusters generated by stationary determinantal random fields
- RECENT TALKS, PRESENTATIONS
- Workshop on Groups and Group Actions in Operator Algebra Theory, **July 12–16 2010**
 (University of Ottawa); *Amenability of Horocyclic Products of Random Trees*,
www.fields.utoronto.ca/programs/scientific/10-11/groups/index.html
- 6th Cornell Probability Summer School **July 19–30 2010**
Annealed return probability of Delayed Random Walk on finite critical percolation clusters,
 Cornell University in Ithaca, NY (www.math.cornell.edu/~cpss/short_talks.pdf)
- Colloquium-Talk at UCCS (University of Colorado at Colorado Springs) **26th of August 2010**
 –same title as before –, (www.uccs.edu/~math/colloquium)
- ‘Simnet’, Styria, Austria: **9th, 10th of September 2010**
 Summer School on Statistics in Industry, *Stability of inventories modeled by queues*
<http://www.joanneum.at/jr/news/news-single-display/article/simnet-summe.html>
- Probability Seminar, University of Colorado at Boulder **15th of March 2011**
<http://math.colorado.edu/~brider/ProbSeminarSpring2011.html>
- Probability Seminar, University of Colorado at Boulder **20th of October 2011**
<http://math.colorado.edu/~brider/ProbSeminarSpring2011.html>
- ORGANIZING A CONFERENCE
- The Alp-Workshop 2009* at St. Kathrein am Offenegg, Styria, Austria **4th, 5th July 2009**
- Workshop subtitle: ‘Spectral and probabilistic properties for random walks on random graphs’
 organized and financed entirely within granted FWF Individual Research Project P18703
 Publication of Proceedings together with contributions from ‘Workshop on Boundaries’ under Editorship consisting of Daniel Lenz, Florian Sobieczky, and Wolfgang Woess
 publication cost also mainly carried by P18703
 ‘Random Walks, Boundaries and Spectra’, Edts.: Daniel Lenz, Florian Sobieczky, Wolfgang Woess,
 Birkhäuser 2010, ISBN 978-3-0346-0243-3, DOI 10.1007/978-3-0346-0244-0
<http://www.math.tu-graz.ac.at/alp-workshop>
- ORGANIZING A SEMINAR
- Presentation of a series of talks in the Ulam-probability-seminar of the Mathematics Dept. of CU Boulder about random walks, potential theory, and orthogonal polynomials.
<http://euclid.colorado.edu/~flso6541/Ulam.pdf>

