Talks and lectures in the Structure Theory Seminar (Strukturtheorie-Seminar)

Institut für Mathematische Strukturtheorie
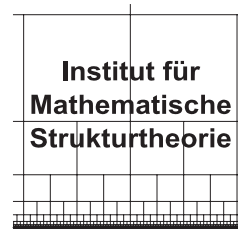
1999

- 1999-11-26: Prof. Vadim A. Kaimanovich (Rennes): *The Sierpinski Gasket and Hyperbolicity: an Application to Random Walks*

- 1999-11-26: Prof. Tullio Ceccherini-Silberstein (Benevento): *The Garden of Eden Theorem for Cellular Automata*

- 1999-11-26: Dr. Tatiana Smirnova-Nagnibeda: *Nonamenable Groups and Percolation*

2000

- 2000-05-12: Dr. Rögnvaldur G. Möller (Reykjavik): *Structure of totally disconnected groups, graphs and permutations*

- 2000-05-30: Dr. Franz Lehner (Paris): *Über Spektralberechnung und freie Wahrscheinlichkeitstheorie*

- 2000-07-04: Prof. Anatoly Vershik (St. Petersburg): *An approach to the uniform distributions on exponential groups*

- 2000-09-28: Dr. Laurent Bartholdi (Genf): *Co-Wachstum von Gruppen und Spektra von Irrfahrten*

- 2000-12-04: Prof. Tullio Ceccherini-Silberstein (Benevento): *Inner amenability of the Richard Thompson group F*

- 2000-12-11: Dr. Daniela Bertacchi (Milano/Graz): *Uniform estimates of transition probabilities on the 2-comb*

2001

- 2001-03-13: Prof. Barry Hughes (Melbourne): *Continuous time random walks*

- 2001-03-20: Prof. Maura Salvatori (Milano): *Multivariate spline frames*

- 2001-06-27: Prof. Paul-Jean Cahen (Marseille): *Integer-valued polynomials*

- 2001-10-30: Dipl.-Math. Ali Ünlü (Graz): *Some mathematical annotations to the correlational agreement coefficient $CA(<, D)$*

- 2001-10-31: Dr. Franz Lehner (Graz): *Good formula for non-commutative cumulants*

- 2001-11-07: Dr. Tatiana Smirnova-Nagnibeda (Stockholm): *Ergodic properties of boundary actions*

2002

- 2002-03-08: Dr. Ronald Ortner (Salzburg): *Arrangement von Pseudokreisen*

- 2002-06-07: Prof. Martin Goldstern (Wien): *Ein starker Ramsey-Satz, und die Konsistenz der Peano-Arithmetik*

- 2002-08-27: Prof. Aljosa Volcic (Trieste): *The solution of the covariogram problem for plane C_+^2 convex bodies*

- 2002-10-07: Prof. Vadim Kaimanovich (Rennes): *Boundary amenability of hyperbolic spaces*

- 2002-10-11: Prof. Vadim Kaimanovich (Rennes): *Random walks with random transition probabilities*

- 2002-10-18: Prof. Maura Salvatori (Milano): *Growth at infinity and behavior of the Laplacian on graphs*

- 2002-11-08: Dr. Sara Brofferio (Paris/Graz): *Stability of the auto-regressive model in the critical case, and random walks on the affine group*

- 2002-11-15: Dr. Anna Erschler (IHES, Bures-sur-Yvette): *Boundary behaviour of groups of subexponential growth*

- 2002-11-29: Prof. Anatoly Vershik (St. Petersburg): *Universality and randomness*

- 2002-12-11: Dr. Daniela Bertacchi (Milano): *Gaussian random fields: entropic repulsion and the role of extrema*

  2003

- 2003-01-24: Prof. Laurent Saloff-Coste (Ithaca, N.Y.): *Random walks on groups: classic and exotic behaviour*

- 2003-02-04: Dr. Sara Brofferio (TU Graz): *Renewal theory on trees* Worcester, MA

- 2003-02-05: Dipl.Math. Ali Ünlü (Univ. Graz): *Assoziationsmaße für die Vorhersagbarkeit von Lösbarkeitsabhängigkeiten zwischen dichotomen Items*

- 2003-03-07: Prof. Tomaz Pisanski (Laibach): *Graphs on the ceilings of Gothic churches*

- 2003-03-28: Prof. Brigitte Servatius (Worcester, MA): *Combinatorial pointed pseudo-triangulations*

- 2003-04-04: Prof. Martin Aigner (Berlin): *Volumen, Polyeder und Primzahlen - ein kombinatorischer Blick,* Kolloquium anläßlich des 60. Geburgtstages von Prof. Rainer Burkard (veranstaltet von Prof. R. Tichy und Prof. W. Woess)

- 2003-04-09 bis 2003-04-11: Kolloquium über Wahrscheinlichkeitstheorie und Statistik (aus Anlass des Dienstantrittes von Prof. István Berkes)

- 2003-05-05: Prof. Norbert Seifter (Montanuniversität Leoben): *Hochsymmetrische gerichtete Graphen*

- 2003-05-15: Dr. Markus Neuhauser (Neuchatel): *Wachstum von Gruppenelementen und die Bass-Vermutung*

- 2003-05-19: Prof. Dimitri Petritis (Rennes): *Random walk in random environment,* Minivorlesung

- 2003-05-22: Prof. Dimitri Petritis (Rennes): *Random walk in random environment on a multiplexed tree*

- 2003-06-11: Prof. Vladimir I. Trofimov (Ekaterinburg): *Geometric group theory and its applications*

- 2003-06-26: Dr. Laurent Bartholdi (Berkely): *The basilica group is amenable*

- 2003-10-08: Prof. Zoran Vondracek (Zagreb): *Ruin probabilities for general perturbed risc processes*

- 2003-10-23: Dr. Markus Neuhauser (Graz): *Nachbarschaftsgraphen von Cayley-Graphen endlich-erzeugter Gruppen*

  2004

- 2004-03-05: Prof. Andrzej Zuk (ENS Lyon): *On the Ihara zeta function for groups and integrable dynamical systems*

- 2004-05-07: Prof. Dr. Tullio Ceccherini-Silberstein (Benevento): *Expander graphs and the Zig-Zag product*

- 2004-03-11: Prof. Dr.Klaus Schmidt (ESI und Univ. Wien): *Quasihyperbolische Automorphismen des Torus und ihre invarianten Maße*

- 2004-06-24: Dr. Bernhard Burgstaller (Univ. Linz): *Higher rank Cuntz-Krieger Algebras*

- 2004-07-15: Dr. Florian Sobieczky (TU Berlin): *About the number of connected components of inverse images of stationary, ergodic fields*

- 2004-07-15: Dr. Sebastien Blachère (Univ. de Provence, Marseille): *Internal diffusion limited agregation*

- 2004-09-09: Prof. Dr. Vadim A. Kaimanovich (Rennes): *Self-similarity and amenability*

- 2004-09-10: Prof. Dr. Vadim A. Kaimanovich (Rennes): *Random walks with maximal entropy on free products*

- 2004-11-15: Dr. Anders Karlsson (KTH Stockholm): *Laws of large numbers for random walks*

- 2004-11-29: Dr. Laurent Bartholdi (EPF Lausanne): *Insanely twisted rabbits*

- 2004-12-13: Dr. Daniela Bertacchi (Univ. Milano – Bicocca): *Asymptotic behaviour of the simple random walk on the 2-dimensional comb*

2005

- 2005-01-21: Prof. Dr. Ken Dykema (Texas A&M University): *Multiplication of free random variables*

- 2005-05-11 and 2005-05-12: Prof. Christophe Pittet (Univ. Aix-Marseille 1): Minicourse *Random walks and isoperimetry on finitely generated groups*

- 2005-05-31: Prof. Brigitte Servatius (WPI Mathematical Sciences): *Starrheit und globale Starrheit von Graphen* (jointly organized with F. Aurenhammer, IGI, TU Graz)

- 2005-06-01: Dr. Florian Sobieczky (TU Graz): *Irrfahrten auf endlichen perkolativen Teilgraphen von transitiven Graphen*

- 2005-06-10: Prof. Dr. Wolfgang Woess (TU Graz): *Horocyclic products of trees, rings of Laurent series, and valuations*

- 2005-10-07: Dipl.-Math. Lorenz Gilch (TU Graz): *Lamplighter random walks on trees*

- 2005-12-16: Prof. Dr. Herbert Heyer (Univ. Tübingen): *Polynomielle Faltungsstrukturen über kompakten Mengen und Anwendungen in der Wahrscheinlichkeitstheorie* [talk in the Mathematical Colloquium]

2006

- 2006-01-20: Prof. Dr. Vadim A. Kaimanovich (International University Bremen): *Random walks with maximal entropy*

- 2006-01-20: Dr. Adam Timar (Indiana Univ., Bloomington, and TU Graz): *Neighbouring clusters in Bernoulli Percolation*

- 2006-03-10: Dr. James Parkinson (University of Sydney): *Isotropic radom walks on affine buildings*

- 2006-03-09: Dr. Adam Timar (TU Graz): *Cut sets in infinite transitive graphs*

- 2006-03-23: The following public talk at *math.space,* Vienna, was co-organized by W. Woess: Prof. Persi Diaconis (Stanford Univ.): *Mathematics and Magic Tricks*

- 2006-04-04: Dr. Florian Sobieczky (TU Graz): *Amenability of equivalence relations and graphs*

- 2006-04-20: Dr. Ivan Veselic (TU Chemnitz): *Anderson-percolation Hamiltonians and compactly supported eigenstates*

- 2006-04-21: Dr. Daniel Lenz (TU Chemnitz): *Gleichmäßige Existenz der integrierten Zustandsdichte*

- 2006-05-10: Dr. Adam Timar (TU Graz): *Conformal invariance and critical percolation in the plane* (after Stanislav Smirnov)

- 2006-05-12: Prof. Dr. Vincenzo Capasso (Univ. Milano): *On the stochastic geometry of birth-and-growth processes* [talk in the Mathematical Colloquium]

- 2006-05-18: Dr. Adam Timar (TU Graz): *A short proof of Kesten's theorem on critical percolation in dimension two* (after Bollobas and Riordan)

- 2006-05-22: Dr. Elmar Teufl (Univ. Bielefeld): *Spannende Bäume und Widerstand auf selbst-ähnlichen Graphen*

- 2006-06-07: Prof. Dr. Nina Gantert (Univ. Münster): *Recurrence and transience of branching Markov chains*

- 2006-06-07: Dr. Florian Sobieczky (TU Graz): *Amenabilität von horozyklischen Produkten zufälliger Bäume*

- 2006-06-22: Dr. Ulrich Haböck (Univ. Wien): *Recurrence of the twisted planar random walk*

- 2006-10-06: Dr. (in spe) Sebastian Müller (Univ. Münster): *The faces of Branching Markov Chains*

- 2006-11-22: Dr. (in spe) Tonci Antunovic (TU Chemnitz): *Asymptotic behavior of the integrated density of states on Cayley graphs*

- 2006-11-17: Prof. Dr. Silke Rolles (TU München): *Edge-reinforced random walk - recent progress and open problems*

- 2006-11-30: Prof. Dr. Norbert Seifter (Montanuniversität Leoben): *Erreichbarkeitsrelationen in gerichteten Graphen*

- 2006-12-06: Dr. Markus Neuhauser (Univ. Wien): *Neue Gegenbeispiele zur starken Atiyah-Vermutung*

- 2006-12-18: Prof. Dr. Franz Halter-Koch (Univ. Graz): *Nicht-eindeutige Faktorisierungen* [talk in the Mathematical Colloquium]

2007

- 2007-01-17: Dr. Bernhard Krön (Univ. Hamburg): *Unendliche Flächen und Enden von planaren Graphen*

- 2007-03-19: Prof. Dr. Günter M. Ziegler (TU Berlin): *Die Kneser-Vermutung, ein diskreter Stokes-Satz, und eine Prise Gruppenkohomologie* [Vortrag im Mathematischen Kolloquium]

- 2007-03-20: Dipl.-Math. Lorenz Gilch (TU Graz): *Die Fluchtrate von Irrfahrten auf Gruppen und Graphen* [Rigorosum]

- 2007-04-16: Dr. Sara Brofferio (Univ. Paris-Orsay): *The Poisson boundary of random rational affinities*

- 2007-06-15: Prof. Dr. Josef Teichmann (TU Wien): *Kubatur am Wiener-Raum und rekombinierende Bäume* [Vortrag im Mathematischen Kolloquium]

- 2007-06-27: Dipl.-Math. Mario Helm (TU Chemnitz): *Lokalisierung auf Gitter-Quantengraphen mit zufälligem Potential auf den Kanten*

- 2007-09-19: Dr. Bernd Burgstaller (Linz): *Mittelbare Cuntz-Krieger Systeme*

- 2007-10-22: Prof. Dr. Marc Peigné (Univ. Tours): *On the growth of non-uniform lattices in pinched negatively curved manifolds*

- 2007-10-22: Dipl.-Math. Ecaterina Sava (TU Graz): *Poisson boundaries of lamplighter random walks*

- 2007-11-05: Dr. James Parkinson (Sydney Univ. / TU Graz): *An introduction to buildings, I*

- 2007-11-12: Dr. Florian Sobieczky (TU Graz): *Random walks on horospheric products of random trees*

- 2007-11-15: Prof. Dr. Vadim Kaimanovich (Jacobs Univ. Bremen): *Hopf decomposition and horospheric limit sets*

- 2007-11-26: Dr. James Parkinson (Sydney Univ. / TU Graz): *An introduction to buildings, II*

- 2007-12-07: Doz. Dr. Bernhard Lamel (Univ. Wien): *Komplexifizierung und Reflektion in mehreren komplexen Veränderlichen* [Vortrag im Mathematischen Kolloquium]

- 2007-12-10: Doz. Dr. Franz Lehner (TU Graz): *On the spectrum of lamplighter groups and percolation clusters*

- 2007-12-18: Minikolloquium – unendliche Graphen und Gruppen.
  Dr. Agelos Georgakopoulos (Univ. Hamburg): *Infinite cycles in graphs*
  Dr. Elmar Teufl (Univ. Bielefeld): *Bundles in nilpotent groups*
  Dr. Bernhard Krön (Univ. Wien): *Vertex cuts*

  2008

- 2008-01-14: Dr. Florian Sobieczky (TU Graz): *Annealed return probability of the blind ant on finite bond percolation clusters*

- 2008-01-18: Prof. Dr. Karl Kunisch (Univ. Graz): *Semi-Smooth Newton Methods for Solving Elliptic Equations with Gradient Constraints and Applications to Portfolio Optimization* [Vortrag im Mathematischen Kolloquium]

- 2008-01-25: Dipl.-Ing. Wilfried Huss (TU Graz): *Internal aggregation models on the comb lattice*

- 2008-03-07: Dr. James Parkinson (TU Graz): *Constructing positively folded alcove walks*

- 2008-04-11: Prof. Dr. Serguei Popov (USP Sao Paulo): *Polling systems with parameter regeneration*

- 2008-04-18: Prof. Dr. Tomas Sauer (Univ. Giessen): *Subdivision in mehreren Variablen – verfeinerbare Funktionen und die verfluchte Dimension* [Vortrag im Mathematischen Kolloquium]

- 2008-04-23: Prof. Dr. Chris Godsil (University of Waterloo, Canada): *Association schemes and independent sets*

- 2008-06-05: Dr. Bruno Schapira (Univ. Paris-Orsay): *Poisson boundary of groups of matrices with rational coefficients*

- 2008-06-05: Dr. Igor Krasovsky (Brunel University, London) *Toeplitz and Hankel determinants with singularities, and polynomials orthogonal on the unit circle*

- 2008-07-28: Dr. Ivan Veselic (TU Chemnitz): *Classical and quantum percolation*

- 2008-07-28: PD Dr. Daniel Lenz (TU Chemnitz): *Uniform Existence of the Integrated Density of States*

- 2008-09-18: Dr. Fabio Zucca (Politecnico di Milano): *Survival for branching random walks*

- 2008-09-23: Dr. Daniela Bertacchi (Univ. Milano-Bicocca): *A model for a population competing for resources*

- 2008-10-02: Dr. Bertran Steinsky (TU Graz): *Labyrinth fractals*

- 2008-11-17: Dipl. Math. Matthias Keller (TU Chemnitz): *The Laplacian on rapidly branching graphs*

- 2008-11-20: Dr. Lorenz Gilch (TU Graz): *Asymptotic entropy of random walks on directed covers of graphs*

- 2008-11-26: Doz. Dr. Erika Hausenblas (Univ. Salzburg): *Stochastic partial differential equations driven by Levy noise - an introduction*

- 2008-11-28: Prof. Dr. Vera Sos (Hungarian Academy of Sciences, Budapest): *Similarity of large graphs - convergence of graph sequences* [Vortrag im Mathematischen Kolloquium]

- 2008-12-15: Dipl-Math. Jörg Lehnert (Univ. Göttingen): *Quasi-automorphisms and the co-word problem*

  2009

- 2009-03-04: Mag. Jean-Christophe Mourrat (Univ. Marseille-I): *Convergence to equilibrium for the environment viewed by a random walker*

- 2009-03-20: Prof. Dr. Motoko Kotani (Tohoku University, Sendai): *A mathematical challenge to material science* [Vortrag im Mathematischen Kolloquium]

- 2009-03-24: Prof. Dr. Wolfgang Spitzer (TU München): *Absolutely continuous spectrum for Schrödinger operators on tree graphs*

- 2009-04-17: Dr. Thomas Hirschler (TU Graz): *Ein vereinfachtes Berechnungsverfahren für das Top to Random Shuffle*

- 2009-04-28 und 2009-05-06: Dr. Agelos Georgakopoulos (TU Graz): *A new homology for infinite graphs and metric continua*

- 2009-05-12: Prof. Dr. Rudolf Grübel (Univ. Hannover): *Der Rand zufällig wachsender binärer Bäume*

- 2009-05-15: Prof. Dr. Nira Dyn (Tel Aviv University): *Linear and nonlinear subdivision schemes in geometric modeling* [Vortrag im Mathematischen Kolloquium]

- 2009-05-26: Prof. Dr. Wolfgang Woess (TU Graz): *Kontextfreie Gruppenpaare*

- 2009-08-17: Minikolloquium – Harmonische Analyse und lokalkompakte Gruppen.
  Dr. Markus Neuhauser (TH Aachen): *Kranzprodukte, horozyklische Produkte von Bäumen und eine Frage von Sir M. Atiyah*
  Dr. Udo Baumgartner (Frankfurt a.M.): *Geometrische Aspekte lokalkompakter, total unzusammenhängender Gruppen*
  Doz. Dr. Franz Lehner (Univ. Genf/TU Graz): *Spektraltheorie auf freien Produkten*

- 2009-09-28: Dipl. Math. Sebastian Haeseler (Univ. Jena): *The parabolic Harnack inequality for quantum graphs*

- 2009-10-01: Prof. Dr. Tullio Ceccherini-Silberstein (Universita' del Sannio): *Groups and cellular automata*

- 2009-10-08: Minikolloquium – Particle systems and random walks on graphs.
  Dr. Daniela Bertacchi (Univ. Milano - Bicocca): *Critical parameters of the branching random walk and truncation*
  Dr. Fabio Zucca (Politecnico di Milano): *Applications of approxiamtion techniques to biological models of spatially structured populations*
  Dipl.-Math. Davide Borrello (Univ. Milano - Bicocca): *The small world effect on the hitting time of two random walkers*

- 2009-11-16: Dipl.-Math. Ecaterina Sava (TU Graz): *Languages associated with infinite graphs – entropy sensitivity via Markov chains*

- 2009-11-23: Prof. Dr. Norman Wildberger (Univ. New South Wales, Sydney): *Rational trigonometry and a new approach to Hyperbolic Geometry* [Vortrag im Mathematischen Kolloquium]

- 2009-11-24: Dipl.-Math. Elisabetta Candellero (TU Graz): *Phase transition of random walk asymptotics on free products of lattices*

- 2009-12-11: Minikolloquium – Random walks, random graphs, random fractals.
  Dr. Sebastian Müller (Univ. de Provence - Marseille: *Random walks on Galton–Watson trees with random conductances*

- 2009-12-11: Prof. Dr. Nina Gantert (Univ. Münster): *Einstein relation for symmetric diffusions in random environment* [Vortrag im Mathematischen Kolloquium]

- 2009-12-14: Dr. Bernhard Krön (Univ. Wien): *Tree decompositions of graphs*