

Personal Data

- Name: Christoph Hofer-Temmel (né Temmel)
- Year of birth: 1984
- Nationality: Austrian
- Languages: German, English, French, Dutch, Italian

Employment history

- 2015.08 – now** Assistant professor at the Dutch Defense Academy (NLDA)
- 2013.03 – 2015.07** PostDoc at the VU Amsterdam University
- 2008.10 – 2013.02** University assistant at Graz University of Technology (TUG)
- 2007.10 – 2008.02, 2005.10 – 2006.06, 2005.03 – 2005.06** Teaching assistant at Graz University of Technology

Studies

2008.10 – 2012.03 Doctoral studies in Technical Mathematics at Graz University of Technology. Joint supervision by Prof Wolfgang Woess (TUG) and Prof Pierre Mathieu (Université de Provence). Including several research stays at the Université de Provence. Thesis on “Properties and applications of Bernoulli random fields with strong dependency graphs”. Defended on 2012.03.19 with distinction.

2003.10 – 2008.08 Master studies in Technical Mathematics at Graz University of Technology. Including a one-year Erasmus stay at the Université de Provence. Master thesis about “K-independent percolation on trees after the works of Balister & Bollobas” under the supervision of Prof Pierre Mathieu and Prof Wolfgang Woess. Finished on 2008.08.28 with distinction.

Mathematical works

Publishing under ”Christoph Hofer-Temmel” und ”Christoph Temmel”. In reverse chronological order:

- [1] Bernhard C. Geiger and Christoph Hofer-Temmel. Graph-based lossless markov lumpings. Submitted, <http://arxiv.org/abs/1509.06580>, 2015+.
- [2] Christoph Hofer-Temmel. Disagreement percolation for the hard-sphere model. Preprint, <http://arxiv.org/abs/1507.02521>, 2015+.

- [3] Christoph Hofer-Temmel. Shearer’s point process and the hard-sphere model in one dimension. Preprint, <http://arxiv.org/abs/1504.02672>, 2015+.
- [4] Christoph Temmel. Shearer’s point process, the hard-sphere gas and a continuum Lovász Local Lemma. Submitted, <http://arxiv.org/abs/1312.0850>, 2013+.
- [5] Florian Lehner and Christoph Temmel. Clique trees of infinite, locally finite chordal graphs. Submitted, <http://arxiv.org/abs/1311.7001>, 2013+.
- [6] Christoph Temmel. Sufficient conditions for uniform bounds in abstract polymer systems and explorative partition schemes. *J. Stat. Phys.*, 157(6):1225–1254, 2014.
- [7] Bernhard C. Geiger and Christoph Temmel. Lumpings of Markov chains, entropy rate preservation, and higher-order lumpability. *J. Appl. Probab.*, 51(4):1114–1132, 2014.
- [8] Bernhard C. Geiger and C. Temmel. Information-preserving Markov aggregation. In *Information Theory Workshop (ITW), 2013 IEEE*, pages 1–5. IEEE, 2013.
- [9] Bernhard C. Geiger, Gernot Kubin, Christoph Temmel, and Wolfgang Woess. Entropy in Information Theory. *TU Graz Research*, 1(9):19–21, 2013.
- [10] Christoph Temmel. *Properties and applications of Bernoulli random fields with strong dependency graphs*. PhD thesis, Institut für Mathematische Strukturtheorie, TU Graz, 2012.
- [11] Christoph Temmel. Shearer’s measure and stochastic domination of product measures. *J. Theoret. Probab.*, 27(1):22–40, 2014.
- [12] Pierre Mathieu and Christoph Temmel. k -independent percolation on trees. *Stochastic Process. Appl.*, 122(3):1129–1153, 2012.
- [13] Christoph Temmel. K -independent percolation on infinite trees after the works of Bollobás and Balister. Master’s thesis, Institut für Mathematische Strukturtheorie, TU Graz, 2008.
- [14] Christoph Temmel. La composante géante d’un graphe aléatoire, 2007.

Activities in the mathematical community

- Memberships:
 - Österreichische Mathematische Gesellschaft (2012–2014)
 - Société Mathématique de France (2012–2014)
- Reviews:
 - 2013 Communications in Mathematical Physics
 - 2013 Internationale Mathematische Nachrichten
 - 2014 Communications in Mathematical Physics

2014 Annales de l'Institut Henri Poincaré, Probabilités et Statistiques
2015 Communications in Mathematical Physics
2015 Annales de l'Institut Henri Poincaré, Probabilités et Statistiques

Grants and Awards

2011.11 ESF RGLIS short visit grant 4446 to visit Prof Fernandez in Utrecht

2011.04 ESF RGLIS short visit grant 4076 to visit Prof Fernandez in Utrecht

2010.07 Association with the doctoral program “Discrete Mathematics” FWF W1230-N13 at the TUG (until 2012.03)

2009.09 2 grants from the Bundesland Steiermark (A3-16.M-93/2009-1, A3-16.M-93/2009-2) to support a stay in Marseille for the 2nd year of my doctoral studies (on leave from TUG)

2008.04 KUWI stipend by the TUG to support a 4 month stay in Marseille to write the master thesis

2004/05 excellence scholarship by the Faculty of mathematics and physics of the TUG

2003/04 excellence scholarship by the Faculty of mathematics and physics of the TUG

Teaching Experience

List of courses in reverse chronological order (WS/SS = winter/summer semester)

2015.08 – now Teaching at the NLDA

(WS 15) “Analysis 2” (Bachelor 1): whole course

2013.09 – 2013.12 Teaching during postdoc at the VU Amsterdam University

(WS 13) “Stochastic processes for finance” (Master 1): exercises, parts of lecture (with Rob van den Berg)

(WS 14) exercises, parts of lecture (with Eduard Belitser)

2008.10 – 2013.01 University assistant at the Institute of Mathematical Structure Theory of the Graz University of Technology. Taking part in the teaching, administration and research of the institute.

(**WS 12**) “Computational mathematics 1” (Bachelor 1 computer science): whole course

(**WS 08, WS 12**) “Mathematics A for electrotechnics” (Bachelor 1 electrotechnics): exercise class organization, tutorial, exams

(**WS 08, WS 12**) “Higher probability theory” (Master 1 mathematics): exercise class

(**SS 09, SS 11, SS 12**) “Discrete stochastic and information theory” (Master 1 mathematics/computer science): exercise class

(**WS 11, SS 12**) Working seminar of the Institute for Mathematical Structure Theory : organisation

(**SS 11, SS 12**) “Discrete Mathematics for Telematics” (Bachelor 1 telematics): exercise class

(**WS 10, WS 11**) “Introduction to functional analysis” (Bachelor 2 mathematics): exercise class

(**WS 10, WS 11**) “Stochastic processes and probability theory” (Bachelor 2 electrotechnics): exercise class organization, exams

(**SS 09**) PhD seminar of the doctoral school in mathematics : organisation

(**SS 09**) “Mathematics B for electrotechnics” (Bachelor 1 electrotechnics): exercise class organization, tutorial, exams

10.2007 – 02.2008, 10.2005 – 06.2006, 03.2005 – 06.2005 Teaching assistant at the Institute of Mathematical Structure Theory of the Graz University of Technology for the following exercise classes:

(**WS 07**) “Stochastic processes and probability theory” (Bachelor 1 electrotechnics)

(**SS 06**) “Mathematics B for electrotechnics” (Bachelor 1 electrotechnics)

(**WS 05**) “Mathematics A for electrotechnics” (Bachelor 1 electrotechnics)

(**SS 05**) “Discrete Mathematics for Telematics” (Bachelor 1 telematics)

Talks

2015.07.17 “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere model” at SPA 2015 / Oxford Web

2015.07.03 “Cluster expansion versus disagreement percolation for hard spheres” at workshop at Utrecht University Web

- 2015.04.13** “Cluster expansion versus disagreement percolation for the hard-sphere model” at the working seminar in Munich [Web](#)
- 2015.02.04** “A review of recent work on one-dependent colourings by Holroyd and Liggett” at working seminar at the VU / Amsterdam
- 2014.12.18** “Disagreement percolation for simple point processes” at the University of Vienna [Web](#)
- 2014.12.12** “A first look at R-independent point processes” at Marc Kac seminar [Web](#)
- 2014.12.10** “Disagreement percolation for the hard-sphere model” at working seminar at the VU / Amsterdam
- 2014.06.11** “Disagreement percolation for point processes The hard sphere case” at Strukturtheorie Seminar at the TU Graz [Web](#)
- 2014.06.11** “Lumpings of Markov chains and entropy rates” at working seminar at the VU / Amsterdam
- 2014.06.02** “Clique decompositions of infinite chordal graphs” at Groups, graphs and random walks / Cortona [Web](#)
- 2014.05.23** “Autour les processus ponctuels R-indépendants” at Institut Elie Cartan / Nancy
- 2014.05.20** “Autour les processus ponctuels R-indépendants” at Modal’X / Nanterre
- 2014.04.15** “Avoidance probabilities of one-independent point processes” at New Frontiers in Random Geometric Graphs / Leiden [Web](#)
- 2014.04.11** “The non-physical singularity of the one-dimensional hard-sphere model” at 2013-14 Warwick EPSRC Symposium on Statistical Mechanics: Combinatorics and Statistical Mechanics [Web](#)
- 2014.03.06** “Shearer’s point process, a continuum Lovász Local Lemma and hard-sphere models” at GPSD 2014 / Ulm [Web](#)
- 2014.02.04** “One-independent point processes” at the WIAS / Berlin
- 2014.02.03** “Das lokale Lemma von Lovász und eins-unabhängige Punktprozesse” at the Osnabrück University
- 2014.01.17** “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere model” at the CWI / Amsterdam

- 2013.12.11** “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere gas” during the seminar at the NYU / Abu-Dhabi
- 2013.12.05** “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere gas” during the work seminar at Leiden University [Web](#)
- 2013.11.06** “Shearer’s point process, the hard-sphere gas and a continuum Lovász Local Lemma” during the work seminar at the VU / Amsterdam
- 2013.10.25** “Le processus de points de Shearer, le gaz de sphères dures et un Lemme Local de Lovász continu” during the probability seminar at the LATP / AMU
- 2013.10.01** “Enumeration of clique trees of chordal graphs” in the FOSP seminar at the Graz University of Technology [Web](#)
- 2013.09.01** “Lumpings of Markov chains and entropy rate loss” during the “2nd Austrian Stochastic Days” in Innsbruck / Austria [Web](#)
- 2013.09.01** “One-independent point processes” during the “OEMG-DMV Kongress 2013” in Innsbruck / Austria [Web](#)
- 2013.08.26** “Cluster expansion via tree-operators in an abstract polymer system” at the “School on Mathematical Statistical Physics” in Prague / Czech Republic [Web](#)
- 2013.05.01** “The Lovasz Local Lemma and the hardcore lattice gas” in the mathematics colloquium of the VU Amsterdam University [Web](#)
- 2012.12.10** “Lumped Markov chains and entropy rate preservation” in the FOSP seminar at the Graz University of Technology [Web](#)
- 2012.10.15** “Shearer’s measure and stochastic domination of Bernoulli product fields” in the seminar at the University of Vienna [Web](#)
- 2012.10.08** “The independent set polynomial in probability theory: the hardcore lattice gas, Shearer’s measure and stochastic domination” in the colloquium of the Goethe University in Frankfurt / Germany [Web](#)
- 2012.09.24** “Shearer’s measure and stochastic domination of Bernoulli product fields” during the “1st Austrian Stochastic Days” in Linz / Austria [Web](#)
- 2012.07.17** “Stochastic domination of Bernoulli product fields” during “42ieme Ecole d’été de Probabilités Saint-Flour” St. Flour / France [Web](#)
- 2012.04.18** “Domination d’un loi produit par des champs des variables aléatoires Bernoulli avec un graphe de dépendance forte” during the colloquium “Jeunes Probabilistes et Statisticiens” at the CIRM / Marseille [Web](#)

2012.03.19 “Properties And Applications Of Bernoulli Random Fields With Strong Dependency Graphs” Rigorosum TU Graz

2012.02.29 “Shearer’s measure and stochastic domination of Bernoulli product fields” during “Young European Probabilists 2012” in Eindhoven / Netherlands Web

2012.02.22 “Partition schemes tailored to clusters and new bounds for abstract polymer models” during the stochastic activity month “Scaling limits in spatial probability” in Eindhoven / Netherlands Web

2012.02.20 “Shearer’s measure and stochastic domination of Bernoulli product fields” at the CWI/Amsterdam

2012.01.12/19 “Introduction to statistical mechanics” during the work seminar at the Institut für Mathematik C / TUG Web

2011.10.05 “K-independent percolation on trees” at the BMS Summer School 2011

2011.07.13 “K-independent percolation on trees” at the 41ieme Ecole d’été de Probabilités Saint-Flour

2011.06.22 “Shearer’s measure and stochastic domination of product measures” at the meeting Marches aléatoires, milieux aléatoires, renforcement

2011.05.15 “Shearer’s measure and stochastic domination of product measures” during the DK seminar at the TUG Web

2011.04.20 “Shearer’s measure and stochastic domination of product measures” at the University of Utrecht

2011.03.15 “The Lovász Local Lemma” during the DK seminar at the TUG Web

2011.02.18 “K-independent percolation on trees” during the work seminar at the LATP / UdP

2011.01.28 “Shearer’s measure and stochastic domination of product measures” at the FOSP seminar at the TUG

2011.01.07 “Shearer’s measure and stochastic domination of product measures” during the work seminar at the LATP / UdP

2010.12.07 “K-independent percolation on trees” at the FOSP seminar at the TUG

2010.07 “K-independent percolation on trees” at the 6th Cornell Probability Summer School

2010.06 “K-independent percolation on trees” during the work seminar at the LATP / UdP

2009.10 “K-independent percolation on trees” during the graduate school seminar at the UdP Web

2009.07 “K-independent percolation on trees after the works of Balister & Bollobas” at the 5th Cornell Probability Summer School

2008.11 “K-independent percolation on trees” during the doctoral seminar at the TUG Web

Mathematical events

2015.07 38th Conference on Stochastic Processes and their Applications at the MAN / Oxford : Talk

2015.07 Expansion methods in statistical mechanics in Utrecht : Talk

2015.06 Journée Nancéienne de Probabilités Discrètes at the IECL / Nancy : Participation

2015.02 Spin Glasses, Random Graphs and Percolation at the IHP / Paris, part of the trimester Disordered systems, random spatial Processes and some applications: Participation

2014.11 Stochastics Meeting Lunteren 2014 at Lunteren / Netherlands: Participation

2014.06 Groups, graphs and random walks in Cortona / Italy: Talk

2014.04 New Frontiers in Random Geometric Graphs at the Lorentz Center in Leiden / Netherlands: Talk

2014.04 2013-14 Warwick EPSRC Symposium on Statistical Mechanics: Combinatorics and Statistical Mechanics at Warwick University / UK: Talk

2014.04 Stochastic Geometry Days 2014 at Lille / France: Participation

2014.03 11th German Probability and Statistics Days in Ulm / Germany: Talk

2013.11 Stochastics Meeting Lunteren 2013 at Lunteren / Netherlands: Participation

- 2013.10** Utrecht Graphs Workshop 2013 at Utrecht / Netherlands: Participation
- 2013.10** ALEA in Europe School at the CIRM in Marseille / France: Participation
- 2013.10** 2nd Austrian Stochastic Days in Innsbruck / Austria: Talk
- 2013.10** OEMG-DMV Kongress 2013 in Innsbruck / Austria: Talk
- 2013.09** School on Mathematical Statistical Physics in Prague / Czech Republic: Talk
- 2013.06** Workshop on Probabilistic Cellular Automata in Eindhoven / Netherlands: Participation
- 2013.02** Ecole d'Hiver : Systèmes dynamiques et désordonnés at the CIRM in Marseille / France: Participation
- 2013.02** Ecole d'Hiver : Mécanique statistique de l'équilibre at the CIRM in Marseille / France: Participation
- 2012.09** 1st Austrian Stochastic Days in Linz / Austria: Talk
- 2012.07** 42ieme Ecole d'été de Probabilités Saint-Flour in St. Flour / France: Talk
- 2012.06** St. Petersburg School in Probability and Statistical Physics in St Petersburg / Russia: Participation
- 2012.04** Colloquium Jeunes Probabilistes et Statisticiens at the CIRM in Marseille / France: Talk
- 2012.02** Meeting Young European Probabilists 2012 in Eindhoven / Netherlands: Talk
- 2012.02** Workshop The expanding art of expansions in Eindhoven / Netherlands: Participation
- 2011.09** BMS Summer School 2011 Random Motions and Random Graphs in Berlin / Germany: Talk
- 2011.07** 41ieme Ecole d'été de Probabilités Saint-Flour in St. Flour / France: Talk
- 2011.06** Meeting Marches aléatoires, milieux aléatoires, renforcement in Roscoff / Frankreich: Talk

2011.04 Spring school on Discrete probability, ergodic theory and combinatorics in Graz / Austria: Talk

2011.03 Informal week of the trimester on Metric geometry, algorithms and groups at the IHP in Paris / France: Participation

2010.09 Course of the graduate school about Random trees at the CIRM in Marseille / France: Participation

2010.07 Summer school 6th Cornell Probability Summer School at Cornell University in Ithaca / USA: Talk

2010.06 Conference Stochastic properties of dynamical systems and random walks in Roscoff / Frankreich: Participation

2010.05 Conference Random walks, random environments, reinforcement at the CIRM in Marseille / France: Participation

2010.04 Workshop Journées Louis Antoine: Transport Optimal at the Universität Rennes I / France: Participation

2010.01 Workshop Inhomogenous Random Systems at the IHP in Paris / France: Participation

2010.01 Workshop Journées Louis Antoine: Probabilités et théorie des groupes at the Universität Rennes I / France: Participation

2009.12 Conference Algèbres d'opérateurs, groupes et géométrie at the CIRM in Marseille / France: Participation

2009.07 Summer school 5th Cornell Probability Summer School at Cornell University / USA: Talk

2009.07 Workshop Boundaries in Graz / Austria: Participation

2007.08 Summer school Probability of the “Scuola Matematica Interuniversitaria” in Cortona / Italy: Participation

2007.02 Week 1 of the conference Géométrie des groupes at the CIRM in Marseille / France: Participation