

Academic employment history

2015.08 – 2019.03 Assistant professor at the NLDA, Faculty of Military Sciences

2013.03 – 2015.07 PostDoc at the VU Amsterdam University, Department of Mathematics

2008.10 – 2013.02 University assistant at Graz University of Technology, Institut für mathematische Strukturtheorie

2007.10 – 2008.02, 2005.10 – 2006.06, 2005.03 – 2005.06 Teaching assistant at Graz University of Technology

Education

2008.10 – 2012.03 Doctoral studies in Technical Mathematics at Graz University of Technology. Joint supervision by Prof Wolfgang Woess (TU Graz) 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.

Publications

Preprints

- [2] Viktor Beneš et al. “Decorrelation of a class of Gibbs particle processes and asymptotic properties of U-statistics”. English. In preparation. 2018+. URL: <https://arxiv.org/abs/1903.06553>.
- [1] Christoph Hofer-Temmel. “Shearer’s point process and the hard-sphere model in one dimension”. English. Preprint. 2015+. URL: <http://arxiv.org/abs/1504.02672>.

Published works

Publishing under ”Christoph Hofer-Temmel” und ”Christoph Temmel”.

- [10] Christoph Hofer-Temmel and Pierre Houdebert. “Disagreement percolation for Gibbs ball models”. English. In: *Stochastic Process. Appl.* 129.10 (2019), pp. 3922–3940. ISSN: 0304-4149. DOI: 10.1016/j.spa.2018.11.003. URL: <http://arxiv.org/abs/1709.04286>.

- [9] Christoph Hofer-Temmel and Pierre Houdebert. “Disagreement percolation for the hard-sphere model”. English. In: *EJP* 24.91 (2019), pp. 1–22. ISSN: 1083-6489. DOI: doi.org/10.1214/19-EJP320. URL: <http://arxiv.org/abs/1507.02521>.
- [8] Christoph Hofer-Temmel and Florian Lehner. “Clique trees of infinite, locally finite chordal graphs”. English. In: *Electron. J. Combin.* 25 (2018). URL: <http://www.combinatorics.org/ojs/index.php/eljc/article/view/v25i2p9>.
- [7] Christoph Hofer-Temmel. “Shearer’s point process, the hard-sphere model, and a continuum Lovász local lemma”. In: *Adv. in Appl. Probab.* 49.1 (2017), pp. 1–23. ISSN: 0001-8678. DOI: 10.1017/apr.2016.76. URL: <http://arxiv.org/abs/1312.0850>.
- [6] Bernhard C. Geiger and Christoph Hofer-Temmel. “Graph-Based Lossless Markov Lumpings”. English. In: *Proc. IEEE Int. Sym. on Information Theory (ISIT)*. 2016. DOI: 10.1109/ISIT.2016.7541856. URL: <http://arxiv.org/abs/1509.06580>.
- [5] Bernhard C. Geiger and Christoph Temmel. “Lumpings of Markov chains, entropy rate preservation, and higher-order lumpability”. English. In: *J. Appl. Probab.* 51.4 (2014), pp. 1114–1132. ISSN: 0021-9002. DOI: 10.1239/jap/1421763331. URL: <http://arxiv.org/abs/1212.4375>.
- [4] Christoph Temmel. “Shearer’s measure and stochastic domination of product measures”. English. In: *J. Theoret. Probab.* 27.1 (2014), pp. 22–40. ISSN: 0894-9840. DOI: 10.1007/s10959-012-0423-6. URL: <http://arxiv.org/abs/1105.1683>.
- [3] Christoph Temmel. “Sufficient Conditions for Uniform Bounds in Abstract Polymer Systems and Explorative Partition Schemes”. English. In: *J. Stat. Phys.* 157.6 (2014), pp. 1225–1254. ISSN: 0022-4715 (1572-9613). DOI: 10.1007/s10955-014-1108-6. URL: <http://arxiv.org/abs/1209.4035>.
- [2] Bernhard C. Geiger and Christoph Temmel. “Information-preserving Markov aggregation”. English. In: *Information Theory Workshop (ITW)*. IEEE, 2013, pp. 1–5. ISBN: 978-1-4799-1321-3. DOI: 10.1109/ITW.2013.6691265. URL: <http://arxiv.org/abs/1304.0920>.
- [1] Pierre Mathieu and Christoph Temmel. “ k -independent percolation on trees”. English. In: *Stochastic Process. Appl.* 122.3 (2012), pp. 1129–1153. ISSN: 0304-4149. DOI: 10.1016/j.spa.2011.10.014. URL: <http://arxiv.org/abs/1103.1291>.

Theses

- [3] Christoph Temmel. “Properties and applications of Bernoulli random fields with strong dependency graphs”. English. PhD thesis. Institut für Mathematische Strukturtheorie, TU Graz, 2012. URL: http://temmel.me/Temmel_-_PropertiesAndApplicationsOfBernoulliRandomFieldsWithStrongDependencyGraphs__TUG_2012.pdf.

- [2] Christoph Temmel. “K-independent percolation on infinite trees after the works of Bollobás and Balister”. English. MA thesis. Institut für Mathematische Strukturtheorie, TU Graz, 2008. URL: http://temmel.me/Temmel_KIndependentPercolationOnInfiniteTreesAfterTheWorksOfBollobasAndBalister_TUG_2008.pdf.
- [1] Christoph Temmel. *La composante géante d'un graphe aléatoire*. Français. 2007. URL: http://temmel.me/Temmel_LaComposanteGeanteDUnGraphAleatoire_UdP_2007.pdf.

Other works

Publishing under ”Christoph Hofer-Temmel” und ”Christoph Temmel”.

- [1] Bernhard C. Geiger et al. “Entropy in Information Theory”. Deutsch,English. In: *TU Graz Research* 1.9 (2013), pp. 19–21. URL: http://temmel.me/pub/Geiger_Kubin_Temmel_Woess_EntropyInInformationTheory_TUG_2013.pdf.

Presentations

- [63] “Disagreement percolation for marked Gibbs point processes”. Seminar @ Charles University (CZ). 2018.01.22. URL: <https://www.mff.cuni.cz/>.
- [62] “Diskordanzperkolaton für Gibbsche Ballmodelle”. Seminar @ KIT (DE). 2018.01.26. URL: <http://www.math.kit.edu/stoch/lehre/agstochgeo2017w/de>.
- [61] “Disagreement percolation for Gibbs PPs”. Midlands probability seminar @ Warwick (UK). 2017.03.01. URL: http://www2.warwick.ac.uk/fac/sci/statistics/news/mpt_seminars.
- [60] “Disagreement percolation for hard-spheres”. Mini-Workshop: Cluster Expansions: From Combinatorics to Analysis through Probability @ MFO Oberwolfach (D). 2017.02.08. URL: https://www.mfo.de/occasion/1706a/www_view.
- [59] “Disagreement percolation for marked Gibbs point processes”. Seminar @ TU Delft (NL). 2017.06.27. URL: <https://www.tudelft.nl/en/eemcs/the-faculty/departments/applied-mathematics/applied-probability/events/seminars/>.
- [58] “Disagreement percolation for marked Gibbs point processes”. 19th Workshop on Stochastic Geometry, Stereology and Image Analysis (SGSIA) @ CIRM (F). 2017.05.18. URL: <http://scientific-events.weebly.com/1513.html>.
- [57] “Disagreement percolation for the hard-sphere model”. Seminar @ Utrecht Universiteit (NL). 2016.05.24. URL: <http://www.math.uu.nl/stochsem/#temmel>.
- [56] “Disagreement percolation for the hard-sphere model”. Seminar @ Leiden Universiteit (NL). 2016.04.26. URL: <http://websites.math.leidenuniv.nl/probability/seminar.html>.

- [55] “Disagreement percolation for the hard-sphere model”. GPSD 2016 @ Bochum (DE). 2016.03.03. URL: <https://gpsd2016.abstract-management.de/program/index.php?conViewSession=5213&action=papers&showDay=281>.
- [54] “Disagreement percolation for the hard-sphere model”. Workshop on Continuum Percolation @ Université de Lille (F). 2016.01.27. URL: <http://math.univ-lille1.fr/~heinrich/Contperc2016/resumes/Hofer-Temmel.pdf>.
- [53] “A review of recent work on one-dependent colourings by Holroyd and Liggett”. working seminar @ VU Amsterdam (NL). 2015.02.04.
- [52] “Cluster expansion versus disagreement percolation for hard spheres”. workshop “Expansion methods in statistical mechanics” @ Utrecht Universiteit (NL). 2015.07.03. URL: <http://www.staff.science.uu.nl/~kalle101/exp15.html>.
- [51] “Cluster expansion versus disagreement percolation for the hard-sphere model”. working seminar @ TU München (DE). 2015.04.13. URL: <http://www-m14.ma.tum.de/en/events/colloquium/ss15/>.
- [50] “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere model”. SPA 2015 @ Oxford (UK). 2015.07.17. URL: <http://spa2015.oxford-man.ox.ac.uk/>.
- [49] “A first look at R-independent point processes”. Marc Kac seminar @ Utrecht (NL). 2014.12.2. URL: <http://www.win.tue.nl/markkac/2014-2015/december.htm>.
- [48] “Autour les processus ponctuels R-indépendants”. séminaire @ Institut Elie Cartan / Nancy (F). 2014.05.23.
- [47] “Autour les processus ponctuels R-indépendants”. séminaire @ Modal’X / Université Nanterre (F). 2014.05.20.
- [46] “Avoidance probabilities of one-independent point processes”. New Frontiers in Random Geometric Graphs @ Leiden (NL). 2014.04.15. URL: <http://www.lorentzcenter.nl/lc/web/2014/622/info.php3?wsid=622&venue=Oort>.
- [45] “Clique decompositions of infinite chordal graphs”. Groups, graphs and random walks @ Cortona (I). 2014.06.02. URL: <http://www.math.tugraz.at/mathc/woess60/index.php>.
- [44] “Das lokale Lemma von Lovász und eins-unabhängige Punktprozesse”. Seminar @ Universität Osnabrück (DE). 2014.02.03.
- [43] “Disagreement percolation for point processes – The hard sphere case”. Strukturtheorie Seminar @ TU Graz (AT). 2014.06.11. URL: <http://www.math.tugraz.at/fosp/aktuelles.php?detail=710%5C#veranst710>.
- [42] “Disagreement percolation for simple point processes”. Seminar @ Universität Wien (AT). 2014.12.18. URL: <http://www.fam.tuwien.ac.at/events/vs-mfp/>.
- [41] “Disagreement percolation for the hard-sphere model”. Seminar @ VU Amsterdam (NL). 2014.12.10.

- [40] “Lumpings of Markov chains and entropy rates”. Seminar @ VU Amsterdam (NL). 2014.06.07.
- [39] “One-independent point processes”. Seminar @ WIAS Berlin (DE). 2014.02.04.
- [38] “Shearer’s point process, a continuum Lovász Local Lemma and hard-sphere model”. GPSD 2014 @ Universität Ulm (DE). 2014.03.06. URL: <http://www.gpsd-ulm2014.de>.
- [37] “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere model”. Seminar @ CWI (NL). 2014.01.17.
- [36] “The non-physical singularity of the one-dimensional hard-sphere model”. 2013-14 Warwick EPSRC Symposium on Statistical Mechanics: Combinatorics and Statistical Mechanics @ UK. 2014.04.11. URL: <http://www2.warwick.ac.uk/fac/sci/math/research/events/2013-2014/statmech/KSU>.
- [35] “Cluster expansion via tree-operators in an abstract polymer system”. School on Mathematical Statistical Physics (CZ). 2013.08.26. URL: <http://www.math.ucla.edu/~biskup/Prague-school-2013/abstracts.html>.
- [34] “Enumeration of clique trees of chordal graphs”. FOSP seminar @ TU Graz (AT). 2013.10.01. URL: <https://www.math.tugraz.at/fosp/>.
- [33] “Le processus de points de Shearer, le gaz de sphères dures et un Lemme Local de Lovász continu”. Seminaire de probabilités @ LATP / Aix-Marseille Université (F). 2013.10.25.
- [32] “Lumpings of Markov chains and entropy rate loss”. 2nd Austrian Stochastic Days @ Universität Innsbruck (AT). 2013.09.27. URL: <https://math-oemg-dmv-2013.uibk.ac.at/cms/index.php/2nd-austrian-stochastics-day>.
- [31] “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere gas”. Seminar @ NYU / Abu-Dhabi / UAE. 2013.12.11.
- [30] “Shearer’s point process, a continuum Lovász Local Lemma and the hard-sphere gas”. probability seminar @ Leiden Universiteit (NL). 2013.12.05. URL: <http://websites.math.leidenuniv.nl/probability/seminar.html>.
- [29] “Shearer’s point process, the hard-sphere gas and a continuum Lovász Local Lemma”. working seminar @ VU Amsterdam (NL). 2013.11.06.
- [28] “Structural results on one-independent point processes”. OEMG-DMV Kongress 2013 @ Universität Innsbruck (AT). 2013.09.24. URL: <https://math-oemg-dmv-2013.uibk.ac.at>.
- [27] “The Lovasz Local Lemma and the hardcore lattice gas”. colloquium @ VU Amsterdam (NL). 2013.05.01. URL: <http://www.math.vu.nl/en/seminars-and-colloquium/colloquium/index.asp>.
- [26] “Domination d’un loi produit par des champs des variables aléatoires Bernoulli avec un graphe de dépendance forte”. colloque “Jeunes Probabilistes et Statisticiens” @ CIRM (F). 2012.04.18. URL: <http://math.unice.fr/~reynaudb/archivesJPS2012.html>.

- [25] “Introduction to statistical mechanics”. Strukturtheorie Seminar @ TU Graz (AT). 2012.01.12/19. URL: http://www.math.tugraz.at/~temmel/lv/worksem/lv.html%5C#20120112_temmel.
- [24] “Lumped Markov chains and entropy rate preservation”. FOSP seminar @ TU Graz (AT). 2012.12.10. URL: <https://www.math.tugraz.at/fosp/>.
- [23] “Partition schemes tailored to clusters and new bounds for abstract polymer models”. SAM “Scaling limits in spatial probability” @ Eurandom (NL). 2012.02.22. URL: <http://www.eurandom.nl/events/workshops/2012/SAM2/indexSAM2.htm>.
- [22] “Properties And Applications Of Bernoulli Random Fields With Strong Dependency Graphs”. Rigorosum @ TU Graz (AT). 2012.03.19.
- [21] “Shearer’s measure and stochastic domination of Bernoulli product fields”. Seminar @ Universität Wien (AT). 2012.10.15. URL: <http://plone.mat.univie.ac.at/events/2012/shearers-measure-and-stochastic-domination-of-bernoulli-product-fields/view>.
- [20] “Shearer’s measure and stochastic domination of Bernoulli product fields”. 1st Austrian Stochastic Days @ Universität Linz (AT). 2012.09.24. URL: <https://stochastics-mathematics.uibk.ac.at/stochasticdays/>.
- [19] “Shearer’s measure and stochastic domination of Bernoulli product fields”. “Young European Probabilists 2012” @ Eurandom (NL). 2012.02.29. URL: http://www.eurandom.nl/events/workshops/2012/YEPIX_2012/index.html.
- [18] “Shearer’s measure and stochastic domination of Bernoulli product fields”. Seminar @ CWI (NL). 2012.02.20.
- [17] “Stochastic domination of Bernoulli product fields”. 42ieme Ecole d’été de Probabilités Saint-Flour @ F. 2012.07.17. URL: <http://math.univ-bpclermont.fr/stflour/>.
- [16] “The independent set polynomial in probability theory: the hardcore lattice gas, Shearer’s measure and stochastic domination”. Kolloquium @ Goethe Universität in Frankfurt (DE). 2012.10.08. URL: <https://www.uni-frankfurt.de/fb/fb12/mathematik/index.html>.
- [15] “K-independent percolation on trees”. BMS Summer School 2011 (DE). 2011.10.05. URL: <http://www.math-berlin.de/Summer-School/BMS-Summer-School-2011.html>.
- [14] “K-independent percolation on trees”. 41ieme Ecole d’été de Probabilités Saint-Flour (F). 2011.07.13. URL: <http://math.univ-bpclermont.fr/stflour/>.
- [13] “K-independent percolation on trees”. Seminaire de LATP @ Université de Provence (F). 2011.02.18.
- [12] “Shearer’s mesure and stochastic domination of product measures”. Marches aléatoires, milieux aléatoires, renforcement (F). 2011.06.22. URL: <http://stockage.univ-brest.fr/~boivin/MEMEMO2011>.
- [11] “Shearer’s mesure and stochastic domination of product measures”. DK seminar @ TU Graz (AT). 2011.05.15. URL: <https://www.math.tugraz.at/discrete/index.php?link=events&link2=ss2011>.

- [10] “Shearer’s measure and stochastic domination of product measures”. Seminar @ Utrecht Universiteit (NL). 2011.04.20.
- [9] “Shearer’s measure and stochastic domination of product measures”. FOSP seminar @ TU Graz (AT). 2011.01.28. URL: <http://www.math.tugraz.at/fosp/aktuelles.php?detail=378%5C#veranst378>.
- [8] “Shearer’s measure and stochastic domination of product measures”. Seminaire de LATP @ Université de Provence (F). 2011.01.07.
- [7] “The Lovász Local Lemma”. DK seminar @ TU Graz (AT). 2011.03.15. URL: <http://www.geometrie.tugraz.at/wallner/doctoral/math-doctoral-seminar-ss2011.php>.
- [6] “K-independent percolation on trees”. FOSP seminar @ TU Graz (AT). 2010.12.07. URL: <http://www.math.tugraz.at/fosp/aktuelles.php?detail=367%5C#veranst367>.
- [5] “K-independent percolation on trees”. 6th Cornell Probability Summer School (USA). 2010.07. URL: <https://www.math.duke.edu/~rtd/CPSS2010/index.html>.
- [4] “K-independent percolation on trees”. Seminaire de LATP @ Université de Provence (F). 2010.06.
- [3] “K-independent percolation on trees”. Seminaire de l’école doctorale @ Université de Provence (F). 2009.10. URL: <http://www.cmi.univ-mrs.fr/ed184/doku.php?id=seminaire:start>.
- [2] “K-independent percolation on trees after the works of Balister & Bollobas”. 5th Cornell Probability Summer School (USA). 2009.07. URL: <https://www.math.duke.edu/~rtd/CPSS2009/index.html>.
- [1] “K-independent percolation on trees”. DK-seminar @ TU Graz (AT). 2008.11. URL: <http://www.geometrie.tugraz.at/wallner/doctoral/math-doctoral-seminar-0809.php>.