Dr. Jérôme KUNEGIS

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Education		
Dr. rer. nat.		2011
University of Koblenz–Landau		
Thesis: *On the Spectral Evolution of Large Networks*		
Dipl.-Inform.		2006
Technical University of Berlin		
Thesis: *Using Integer Linear Programming for Search Results Optimization*		
Baccalauréat		1999
Lycée Français de Berlin		
Abitur		1999
Lycée Français de Berlin		
Diplôme national du brevet		1996
Lycée Français de Berlin		

Positions		
Postdoctoral Researcher		2017–present
Namur Center for Complex Systems (naXys), University of Namur		
Postdoctoral Researcher		2011–2016
Institute for Web Science and Technologies, University of Koblenz–Landau		
Visiting Postdoctoral Researcher		2013
Networks and Operating Systems Group, University of Cambridge		
Research Assistant		2010–2011
Institute for Web Science and Technologies, University of Koblenz–Landau		
Research Assistant		2006–2010
DAI Lab, Technical University of Berlin		
Student Research Assistant		2002–2006
DAI Lab, Technical University of Berlin		

Teaching

- Network Theory and Dynamic Systems, University of Koblenz–Landau, SS 2016.
- Advanced Topics in Network Science, University of Koblenz–Landau, SS 2016.
- Introduction to Database Systems (Grundlagen der Datenbanken, Lecturer), University of Koblenz–Landau, WS 2015/2016.

- Learning Analytics: Aspects of Machine Learning and Empirical Psychology in E-Learning, (Learning analytics: Aspekte des Machine Learnings und empirischer Psychologie beim E-Learning, Proseminar), University of Koblenz–Landau, WS 2015/2016.
- Network Theory and Dynamic Systems, University of Koblenz–Landau, SS 2015.
- Recommender Systems (Seminar), University of Koblenz–Landau, SS 2015.
- Introduction to Database Systems (Grundlagen der Datenbanken, Lecturer), University of Koblenz–Landau, WS 2014/2015.
- Distributed Scalable Network Analysis (Research Lab), University of Koblenz–Landau, WS 2014/2015.
- Advanced Topics in Network Theory (Seminar), University of Koblenz–Landau, SS 2014.
- Network Theory and Dynamic Systems, University of Koblenz–Landau, SS 2014.
- Introduction to Database Systems (Grundlagen der Datenbanken, Lecturer), University of Koblenz–Landau, WS 2013/2014.
- Network Theory and Dynamic Systems, University of Koblenz–Landau, SS 2013.
- Social Networks (Soziale Netzwerke, Proseminar), University of Koblenz–Landau, SS 2013.
- Introduction to Database Systems (Grundlagen der Datenbanken, Lecturer), University of Koblenz–Landau, WS 2012/2013.
- Social Networks (Soziale Netzwerke, Proseminar), University of Koblenz–Landau, SS 2012.
- Introduction to Database Systems (Grundlagen der Datenbanken, Assistant), University of Koblenz–Landau, WS 2011/2012.
- Introduction to Database Systems (Grundlagen der Datenbanken, Assistant), University of Koblenz–Landau, WS 2010/2011.

Supervised Theses

- Marcel Reif. Automatische Erkennung von exakten und Near-Duplikaten in einer Netzwerkdatenbank, *Bachelor of Science*, University of Koblenz–Landau, 2016.
- Nils Geilen. Entwicklung eines Systems zur Vorhersage von Nutzeraktivität auf den Diskussionsseiten der Wikipedia, *Bachelor of Science*, University of Koblenz–Landau, 2015.
- Jesús Cabello González. Berechnung und Approximation von Kürzeste-Pfad-Statistiken in großen Netzwerken für KONECT, *Bachelor of Science*, University of Cádiz, 2014.
- Julia Preusse. Analysis of the WebUni Online Student Community, *Dipl.-Inform.*, Otto von Guericke University Magdeburg, 2010.
- Stephan Spiegel. A Hybrid Approach to Recommender Systems based on Matrix Factorization, *Dipl.-Inform.*, Technical University of Berlin, 2009.
- Christian Banik. Recommending Wiki Articles using Collaborative Filtering, *Dipl.-Inform.*, Technical University of Berlin, 2009.
- Iris Breddin. Untersuchung der Klassifizierbarkeit und Klassifikation von Schweißnahtdaten, *Dipl.-Inform.*, Technical University of Berlin, 2008.

Conference Organization

- WeST Off-Campus Meeting (OCM), 2016, Chair.
- INFORMATIK, 2013, Publicity Chair.
- Web Sci. Conf. (WebSci), 2011, Publicity Chair.
- Special Session on Uncertainty in Netw. Min. (UNM) at the Int. Conf. on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), 2010, Technical Chair.

Program Committees

- Int. Workshop on Complex Netw. and Their Applications, 2016.
- Int. AAAI Conf. on Web and Social Media (ICWSM), 2016.
- Workshop on Social News on the Web (SNOW) at the World Wide Web Conf. (WWW), 2016.
- Workshop on SociAL Semantic Analysis (SALSA), 2016.
- #FAIL! – The Workshop Series at the Internet Research Conf. (IR), 2015.
- Web Sci. Track, Int. World Wide Web Conf. (WWW), 2015.
- #FAIL! – The Workshop Series at the Web Sci. Conf. (WebSci), 2015.
- Web Sci. Conf. (WebSci), 2014.
- Workshop on Social News on the Web (SNOW) at the World Wide Web Conf. (WWW), 2014.
- Workshop on Connecting Online & Offline Life (COOL) at the World Wide Web Conf. (WWW), 2014.
- Web Sci. Track, Int. World Wide Web Conf. (WWW), 2014.
- Int. Joint Conf. on Artificial Intelligence (IJCAI), 2013.
- Web Sci. Conf. (WebSci), 2013.
- Web Sci. Education Workshop at the Web Sci. Conf. (WebSci), 2013.
- Conf. on Semantic Technology and Information Retrieval (STAIR), 2013.
- Int. Workshop on Semantic Personalized Information Management (SPIM) at the Int. Conf. on Web Search and Data Mining (WSDM), 2013.
- European Conf. on Information Retrieval (ECIR), 2013.
- Workshop on Metrics, Analysis and Tools for Online Community Management (MAMA), at INFORMATIK, 2013
- Web Sci. Conf. (WebSci), 2012.
- Eur. Conf. on Information Retrieval (ECIR), poster track, 2012.
- Conf. on Natural Language Processing (KONVENS), 2012.
- Workshop on Personalized Information Management: Linking Social and Semantic Web (SPIM) at the Int. Conf. on Web Engineering (ICWE), 2012.
- Conf. on Information and Knowledge Management (CIKM), 2011.
- Web Sci. Conf. (WebSci), 2011.
- Int. Conf. on Knowledge Discovery and Data Mining (KDD), research track, 2011.
- Challenge on Context-aware Movie Recommendation (CAMRa) at the Conf. on Recommender Systems (RecSys), 2010.
- Special Session on Uncertainty in Netw. Min. (UNM) at the Int. Conf. on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), 2010.

Ten Selected Publications

[1] The problem of action at a distance in networks and the emergence of preferential attachment from triadic closure. Jérôme Kunegis, Fariba Karimi, and Jun Sun. *J. of Interdiscip. Methodol. and Issues in Sci.*, Graphs and Social Systems, 2017.

[2] Continuous-time quantum walks on directed bipartite graphs. Beat Tödtli, Monika Laner, Jouri Semenov, Beatrice Paoli, Marcel Blattner, and Jérôme Kunegis. *Phys. Rev. A*, 94:052338, 2016.

[3] On the ubiquity of web tracking: Insights from a billion-page web crawl, Sebastian Schelter and Jérôme Kunegis, 2016. In review.

[4] Linguistic neighbourhoods: Explaining cultural borders on Wikipedia through multilingual co-editing activity. Anna Samoilenko, Fariba Karimi, Daniel Edler, Jérôme Kunegis, and Markus Strohmaier. *Eur. Phys. J. Data Sci.*, 5(9), 2016.

[5] Voting behaviour and power in online democracy: A study of LiquidFeedback in Germany's Pirate Party. Christoph Carl Kling, Jérôme Kunegis, Heinrich Hartmann, Markus Strohmaier, and Steffen Staab. In *Proc. Int. Conf. on Weblogs and Soc. Media*, pages 208–217, 2015.

[6] Social networking by proxy: A case study of Catster, Dogster and Hamsterster. Daniel Dünker and Jérôme Kunegis. 2015.

[7] Social networking by proxy: Analysis of Dogster, Catster and Hamsterster. Daniel Dünker and Jérôme Kunegis. In *Proc. Int. Conf. on World Wide Web Companion*, pages 361–362, 2015.

[8] Exploiting the structure of bipartite graphs for algebraic and spectral graph theory applications. Jérôme Kunegis. *Internet Math.*, 11(3):201–321, 2015.

[9] Detecting non-Gaussian geographical topics in tagged photo collections. Christoph Carl Kling, Jérôme Kunegis, Sergej Sizov, and Steffen Staab. In *Proc. Int. Conf. on Web Search and Data Min.*, pages 603–612, 2014.

[10] What is the added value of negative links in online social networks? Jérôme Kunegis, Julia Preusse, and Felix Schwagereit. In *Proc. Int. World Wide Web Conf.*, pages 727–736, 2013.

[11] Structural dynamics of knowledge networks. Julia Preusse, Jérôme Kunegis, Matthias Thimm, Thomas Gottron, and Steffen Staab. In *Proc. Int. Conf. on Weblogs and Soc. Media*, pages 506–515, 2013.

[12] Spectral evolution in dynamic networks. Jérôme Kunegis, Damien Fay, and Christian Bauckhage. *Knowl. and Inf. Syst.*, 37(1):1–36, 2013.

[13] Predicting directed links using nondiagonal matrix decomposition. Jérôme Kunegis and Jörg Fliege. In *Proc. Int. Conf. on Data Min.*, pages 948–953, 2012.

[14] Bad news travels fast: A content-based analysis of interestingness on Twitter. Nasir Naveed, Thomas Gottron, Jérôme Kunegis, and Arifah Che Alhadi. In *Proc. Web Sci. Conf.*, 2011.

[15] Spectral analysis of signed graphs for clustering, prediction and visualization. Jérôme Kunegis, Stephan Schmidt, Andreas Lommatzsch, and Jürgen Lerner. In *Proc. SIAM Int. Conf. on Data Min.*, pages 559–570, 2010.

[16] Learning spectral graph transformations for link prediction. Jérôme Kunegis and Andreas Lommatzsch. In *Proc. Int. Conf. on Mach. Learn.*, pages 561–568, 2009.

[17] The Slashdot Zoo: Mining a social network with negative edges. Jérôme Kunegis, Andreas Lommatzsch, and Christian Bauckhage. In *Proc. Int. World Wide Web Conf.*, pages 741–750, 2009.

Keynotes and Invited Talks	• Algebraic Graph-theoretic Measures of Conflict, Journée Graphes et Systèmes Sociaux (Seminar on Graphs and Social Systems), 2016.
	• Measuring Conflict in Signed Social Networks, Application of Netw. Theory on Computational Social Sci. (Workshop), 2015.
	• Large Network Collections: The Power of Many Datasets, Int. Workshop on Social Netw. Analysis (ARS), 2015.
	• Network Analysis Tools for Online Communities: The Koblenz Network Collection. Keynote, Workshop on Metrics, Analysis and Tools for Online Community Management (MAMA), 2013.
Mentions in Media	• Die Abstimmungssoftware LiquidFeedback in der Piratenpartei: wegweisend für Demokratie 2.0?, www.piratenpartei.de, May 2015.
	• Come ha funzionato davvero la democrazia liquida dei Pirati tedeschi, Wired Italia, April 2015.
Awards and Nominations	• First Prize, Int. Conf. on Web and Social Media (ICWSM) Science Slam, 2016.
	• Best Poster Award, Int. School and Conf. on Netw. Sci. (NetSciX), 2016.
	• Best Paper Honorable Mention, Int. Conf. on Web and Social Media (ICWSM), 2015.
	• Ted Nelson Newcomer Award Nominee, Conf. on Hypertext and Social Media (HT), 2012.
	• Student Travel Award, Int. Conf. on Information and Knowledge Management (CIKM), 2010.
	• Student Travel Fellowship Award, SIAM Conf. on Data Mining (SDM), 2010.
	• Best Paper Nominee, Industrial Conf. on Data Mining (IndCDM), 2007.
	• Premier Prix (First Prize), Rallye mathématique d'Alsace, Terminale (Alsace Mathematical Rally), 1999.
Main Software Authorship	• Stu, build automation (C++11)
	• KONECT Toolbox, network analysis toolbox (Matlab, C99)
	• Polcovar, software for counting patterns in random graphs (Matlab)
	• Universal Recommender, recommendation library (Java)
	• BabyChess, chess engine and GUI (C++98)
	• *More: see* `github.com/kunegis`
Miscellaneous	• Birthday: March 27
	• Languages: French (first language), German (first language), English (advanced)
	• Programming languages and technologies I use extensively: Bourne shell, C, C++, Java, Latex, Make, Matlab, GNU Octave, sed