

## Dr. Jérôme Kunegis (Complete CV)

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[twitter.com/kunegis](https://twitter.com/kunegis)  
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[networkscience.wordpress.com](http://networkscience.wordpress.com)

Education	<b>Dr. rer. nat.</b>	2011
	<a href="#">University of Koblenz–Landau</a> Thesis: <i>On the Spectral Evolution of Large Networks</i>	
	<b>Dipl.-Inform.</b>	2006
	<a href="#">Technical University of Berlin</a> Thesis: <i>Using Integer Linear Programming for Search Results Optimization</i>	
	<b>Baccalauréat</b>	1999
	<a href="#">Lycée Français de Berlin</a> Série scientifique	
	<b>Abitur</b>	1999
	<a href="#">Lycée Français de Berlin</a> Leistungskurse: Mathematik, Physik	
	<b>Diplôme national du brevet</b>	1996
	<a href="#">Lycée Français de Berlin</a> Série collège	
Positions	<b>Postdoctoral Researcher</b>	2011–2016
	<a href="#">Institute for Web Science and Technologies</a> , University of Koblenz–Landau <a href="#">ROBUST</a> (EU FP7), <a href="#">SocialSensor</a> (EU FP7), <a href="#">Koblenz Network Collection</a> (KONECT), Social Information Processing (DFG WGI), <a href="#">REVEAL</a> (EU FP7).	
	<b>Visiting Postdoctoral Researcher</b>	2013
	<a href="#">Networks and Operating Systems Group</a> , University of Cambridge	
	<b>Research Assistant</b>	2010–2011
	<a href="#">Institute for Web Science and Technologies</a> , University of Koblenz–Landau <a href="#">WeKnowIt</a> (EU FP7), <a href="#">ROBUST</a> (EU FP7), <a href="#">MULTIPLA</a> (DFG).	
	<b>Research Assistant</b>	2006–2010
	<a href="#">DAI Lab</a> , Technical University of Berlin Projects <a href="#">PIA</a> (Personalized Information Agent), <a href="#">Universal Recommender</a> (Semantic Recommendation Engine), <a href="#">Connected Living</a> (Innovationszentrum “Vernetztes Leben”), <a href="#">Smart Senior</a> (Intelligent Services for Elderly People), <a href="#">UCPM</a> (User Centric Profile Management), <a href="#">WebTV</a> (Semantic TV Recommendations), <a href="#">SERUM</a> (Semantic Recommenders based on Large, Unstructured Data).	

## Student Research Assistant

2002–2006

DAI Lab, Technical University of Berlin

Projects Corinna und Cornelius (Speech-controlled Personal Digital Assistant), PIA (Personalized Information Agent), Synergie (Collaborative e-Science Platform).

## 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 Science Conf.](#) (WebSci), 2011, Publicity Chair.
- [Special Session on Uncertainty in Network Mining](#) (UNM) at the Int. Conf. on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), 2010, Technical Chair.

## Program Committees

- [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 Science Track](#), Int. World Wide Web Conf. (WWW), 2015.
- [#FAIL! – The Workshop Series](#) at the Web Science Conf. (WebSci), 2015.
- [Web Science 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 Science Track](#), Int. World Wide Web Conf. (WWW), 2014.
- [Int. Joint Conf. on Artificial Intelligence](#) (IJCAI), 2013.
- [Web Science Conf.](#) (WebSci), 2013.
- [Web Science Education Workshop](#) at the Web Science 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 Science Conf.](#) (WebSci), 2012.
- [European 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 Science Conf.](#) (WebSci), 2011.
- [Int. Conf. on Knowledge Discovery and Data Mining](#) (KDD), research track, 2011.

## Review Boards and Other Reviewing

- [Challenge on Context-aware Movie Recommendation \(CAMRa\)](#) at the Conf. on Recommender Systems (RecSys), 2010.
- [Special Session on Uncertainty in Network Mining \(UNM\)](#) at the Int. Conf. on Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), 2010.
- [Network Science](#), 2015, 2016.
- [ACM Computing Surveys](#), 2014, 2015.
- [The J. of Web Science](#), 2014.
- [ACM Trans. on Internet Technologies \(TOIT\)](#), 2014.
- [Special Issue on “Propagation Phenomenon in Complex Networks: Theory and Practice”](#), New Generation Computing, 2014.
- [Int. Semantic Web Conf. \(ISWC\)](#), 2013.
- [Int. Conf. on Computational Statistics \(COMPSTAT\)](#), 2012.
- [Int. J. of Computer and Telecommunications Networking \(COMNET\)](#), 2012.
- [IEEE Trans. on Neural Networks \(TNN\)](#), 2011.
- [J. on Autonomous Agents and Multi-agent Systems \(AAMAS\)](#), Special Issue on Agent Mining, 2011.
- [ACM Trans. on Knowledge Discovery from Data \(TKDD\)](#), 2011.
- [TV Content Analysis \(TVCA\)](#), 2011.
- [Workshop on Ontologies and Lexical Resources \(OntoLex\)](#) at the Int. Conf. on Computational Linguistics (COLING), 2010.

## Publications

- [1] [Continuous-time quantum walks on directed bipartite graphs](#). Beat Tödtli, Monika Laner, Jouri Semenov, Beatrice Paoli, Marcel Blattner, and Jérôme Kunegis. *Phys. Rev. A*, 2016.
- [2] [On the ubiquity of web tracking: Insights from a billion-page web crawl](#), Sebastian Schelter and Jérôme Kunegis, 2016. In review.
- [3] [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 Science*, 5(9), 2016.
- [4] [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 Social Media*, pages 208–217, 2015.
- [5] [Social networking by proxy: A case study of Catster, Dogster and Hamsterster](#). Daniel Dünker and Jérôme Kunegis. 2015.
- [6] [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.
- [7] [Exploiting the structure of bipartite graphs for algebraic and spectral graph theory applications](#). Jérôme Kunegis. *Internet Math.*, 11(3):201–321, 2015.
- [8] [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 Mining*, pages 603–612, 2014.

- [9] [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.
- [10] [Structural dynamics of knowledge networks.](#) Julia Preusse, Jérôme Kunegis, Matthias Thimm, Thomas Gottron, and Steffen Staab. In *Proc. Int. Conf. on Weblogs and Social Media*, pages 506–515, 2013.
- [11] [Spectral evolution in dynamic networks.](#) Jérôme Kunegis, Damien Fay, and Christian Bauckhage. *Knowledge and Information Systems*, 37(1):1–36, 2013.
- [12] [Predicting directed links using nondiagonal matrix decomposition.](#) Jérôme Kunegis and Jörg Fliege. In *Proc. Int. Conf. on Data Mining*, pages 948–953, 2012.
- [13] [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 Science Conf.*, 2011.
- [14] [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 Mining*, pages 559–570, 2010.
- [15] [Learning spectral graph transformations for link prediction.](#) Jérôme Kunegis and Andreas Lommatzsch. In *Proc. Int. Conf. on Machine Learning*, pages 561–568, 2009.
- [16] [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 Network Theory on Computational Social Science (Workshop), 2015.
- Large Network Collections: The Power of Many Datasets, [Int. Workshop on Social Network 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.

## Other Talks

- Web Science in Practice: Web Observatories. WSTNet Web Science Summer School, 2016.
- KONECT: The Koblenz Network Collection – Towards a Broad Analysis of Complex Systems. ETH Zürich, 2015.
- Observing the Web: The Koblenz Network Collection. Bournemouth University, 2013.
- Growth and Decay: Using Machine Learning to Predict the Web’s Future, Workshop on Artificial Intelligence on the Web, 2012.
- Models of Like, Dislike, Similarity and Dissimilarity using Split-complex Numbers, University College Dublin, 2012.
- Why Is Beyoncé More Popular Than Me: Fairness, Diversity and Other Measures of Network Equality. University of Freiburg, 2012.
- Fairness on the Web: Alternatives to the Power Law. Leibniz-Institut für Sozialwissenschaften, Cologne, 2012.

- On the Spectral Evolution of Large Networks. University College Cork, 2011.
- On the Spectral Evolution of Large Networks. Fraunhofer IAIS, St. Augustin, 2011.
- On the Spectral Evolution of Large Networks. Technical University of Berlin, 2011.
- The Slashdot Zoo: Mining a Social Network with Negative Edges. Data and Knowledge Engineering Research Colloquium, Otto-von-Guericke University Magdeburg, 2010.
- The Slashdot Zoo: Mining a Social Network with Negative Edges. University of Koblenz–Landau, 2010.
- The Slashdot Zoo: Mining a Social Network with Negative Edges. University of Hannover, 2010.
- PIA+COMM – an Intelligent Search Engine. Michael Hahne, Corinna Jung, Jérôme Kunegis, Andreas Lommatzsch and André Paus. Workshop on the Formation of Social Networks in Social Software Applications, INFORMATIK, 2006.

#### Posters without Publication

- Linguistic Neighbourhoods: Explaining Cultural Borders on Wikipedia through Multilingual Co-editing Activity. Anna Samoilenko, Fariba Karimi, Daniel Edler, Jérôme Kunegis, Markus Strohmaier, Int. School and Conf. on Network Science (NetSciX), 2016.
- Social Network Observatory. Jérôme Kunegis, Markus Strohmaier, Steffen Staab. Computational Social Science Winter Symposium, 2015.
- Quantifying Cultural Similarity through Language Co-occurrences in Wikipedia Editing Activity. Anna Samoilenko, Fariba Karimi, Daniel Edler, Jérôme Kunegis, Markus Strohmaier. Computational Social Science Winter Symposium, 2015.
- Polarisation in Voting Platforms: A Case Study of LiquidFeedback in the German Pirate Party. Manuel Mittler, Christoph Carl Kling, Jérôme Kunegis, Markus Strohmaier, Computational Social Science Winter Symposium, 2015.
- Twitter as a Political Network – Predicting the Following and Unfollowing Behavior of German Politicians. Julia Perl, Claudia Wagner, Jérôme Kunegis, Steffen Staab, Web Science Conf., 2015.
- Online Delegative Democracy: A Case Study of the German Pirate Party’s Voting Platform. Christoph Carl Kling, Jérôme Kunegis, Heinrich Hartmann. Computational Social Science Winter Symposium, 2014.
- Social Networking By Proxy: A Case Study of Catster, Dogster and Hamsterster. Computational Social Science Winter Symposium, 2014.
- A Theory-Driven Approach for Link and Unlink Predictions in Directed Social Networks. Julia Perl, Claudia Wagner, Jérôme Kunegis, Steffen Staab. Computational Social Science Winter Symposium, 2014.
- [KONECT – The Koblenz Network Collection](#). Jérôme Kunegis, Steffen Staab, Daniel Dünker. Int. School and Conf. on Network Science, 2012.
- [Need Networks? KONECT – The Koblenz Network Collection](#). European Summer School on Information Retrieval, 2011.
- [KONECT – The Koblenz Network Collection](#). Web Science Conf., 2011.
- [Uncovering Multi-modal Spread Modes using Joint Diagonalization in Dynamic Human Contact Networks](#). Damien Fay, Jérôme Kunegis, Eiko Yoneki. Interdisciplinary Workshop on Information and Decision in Social Networks, 2011.

	<ul style="list-style-type: none"> <li>• <a href="#">On the Spectral Evolution of Large Networks</a>. Postersession für Nachwuchswissenschaftler/innen, University of Koblenz–Landau, 2011.</li> <li>• <a href="#">On the Spectral Evolution of Large Networks</a>. SIAM Conf. on Data Mining Doctoral Forum, 2010.</li> </ul>
<b>Demonstrations and Presentations</b>	<ul style="list-style-type: none"> <li>• Institute for Web Science and Technologies, conference booth. <a href="#">INFORMATIK 2013</a>.</li> <li>• Schülerinformationstage, Institute for Web Science and Technologies, University of Koblenz–Landau, 2011, 2013, 2015, 2016.</li> <li>• LiveTweet: Monitoring and Predicting Interesting Microblog Posts, <a href="#">European Conference on Information Retrieval</a> (ECIR), 2012.</li> <li>• Time-aware Centrality in Contact Network Analysis. Eiko Yoneki, Damien Fay, Jérôme Kunegis. <a href="#">European Conference on Complex Systems</a> (ECCS), 2011.</li> <li>• PIA, Spree, CeBIT, 2010.</li> <li>• PIA+COMM, CeBIT, 2007.</li> <li>• PIA, Lange Nacht der Wissenschaften Berlin/Potsdam, 2006.</li> </ul>
<b>Mentions in Media</b>	<ul style="list-style-type: none"> <li>• <a href="#">Die Abstimmungssoftware LiquidFeedback in der Piratenpartei: wegweisend für Demokratie 2.0?</a>, <a href="http://www.piratenpartei.de">www.piratenpartei.de</a>, May 2015.</li> <li>• <a href="#">Come ha funzionato davvero la democrazia liquida dei Pirati tedeschi</a>, Wired Italia, April 2015.</li> </ul>
<b>Awards and Nominations</b>	<ul style="list-style-type: none"> <li>• First Prize, Int. Conf. on Web and Social Media (ICWSM) Science Slam, 2016.</li> <li>• Best Poster Award, Int. School and Conf. on Network Science (NetSciX), 2016.</li> <li>• Best Paper Honorable Mention, Int. Conf. on Web and Social Media (ICWSM), 2015.</li> <li>• Ted Nelson Newcomer Award Nominee, Conf. on Hypertext and Social Media (HT), 2012.</li> <li>• Student Travel Award, Int. Conf. on Information and Knowledge Management (CIKM), 2010.</li> <li>• Student Travel Fellowship Award, SIAM Conf. on Data Mining (SDM), 2010.</li> <li>• Best Paper Nominee, Industrial Conf. on Data Mining (IndCDM), 2007.</li> <li>• Premier Prix (First Prize), Rallye mathématique d’Alsace, Terminale (Alsace Mathematical Rally), 1999.</li> </ul>
<b>Main Software Authorship</b>	<ul style="list-style-type: none"> <li>• <a href="#">Stu</a>, build automation (C++11)</li> <li>• SynGraphy, graph generator (Matlab)</li> <li>• <a href="#">KONECT Toolbox</a>, network analysis toolbox (Matlab, C99)</li> <li>• <a href="#">Polcovar</a>, software for counting patterns in random graphs (Matlab)</li> <li>• Universal Recommender, recommendation library (Java)</li> <li>• BabyChess, chess engine (C++98)</li> <li>• <i>More: see <a href="https://github.com/kunegis">github.com/kunegis</a></i></li> </ul>

## 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, sed
- Other programming languages and technologies I have used: BASIC, HTML, JavaScript, Logo, Perl, PHP, Turbo Pascal