

## Dr. Jérôme Kunegis (Complete CV)

---

University of Koblenz–Landau  
Institute for Web Science and Technologies  
Universitätsstraße 1  
56070 Koblenz  
Germany

Tel: +49 261 287-2775  
Fax: +49 261 287-100-2775  
[kunegis@uni-koblenz.de](mailto:kunegis@uni-koblenz.de)  
[uni-koblenz.de/~kunegis](http://uni-koblenz.de/~kunegis)  
[twitter.com/kunegis](https://twitter.com/kunegis)  
[linkedin.com/in/kunegis](https://www.linkedin.com/in/kunegis)  
[networkscience.wordpress.com](http://networkscience.wordpress.com)  
[konect.uni-koblenz.de](http://konect.uni-koblenz.de)

<b>Education</b>	<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="#">Technische Universität 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
<b>Experience</b>	<b>Postdoc</b> 2011–present <a href="#">Institute for Web Science and Technologies</a> , University of Koblenz–Landau ROBUST (EU FP7), Koblenz Network Collection (KONECT).
	<b>Research Assistant</b> 2010–2011 <a href="#">Institute for Web Science and Technologies</a> , University of Koblenz–Landau WeKnowIt (EU FP7), ROBUST (EU FP7), MULTIPLA (DFG).
	<b>Research Assistant</b> 2006–2010 <a href="#">DAI Lab</a> , Technische Universität Berlin Projects PIA (Personalized Information Agent), Universal Recommender (Semantic Recommendation Engine), Connected Living (Innovationszentrum “Vernetztes Leben”), Smart Senior (Intelligent Services for Elderly People), UCPM (User Centric Profile Management), WebTV (Semantic TV Recommendations), SERUM (Semantic Recommenders based on Large, Unstructured Data).
	<b>Undergrad Research Assistant</b> 2002–2006 <a href="#">DAI Lab</a> , Technische Universität Berlin

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

### Teaching

- [Social Networks](#) (Soziale Netzwerke, Proseminar), University of Koblenz–Landau, SS 2012.
- [Introduction to Database Systems](#) (Grundlagen der Datenbanken, Lecture), University of Koblenz–Landau, WS 2011/2012.
- [Introduction to Database Systems](#) (Grundlagen der Datenbanken, Lecture), University of Koblenz–Landau, WS 2010/2011.

### Conference Chairs

- [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

- [Web Science Conf.](#) (WebSci), 2012.
- [European Conf. on Information Retrieval](#) (ECIR), poster track, 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.
- [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.

### Review Committees

- [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.

### Supervised Theses

- Julia Preusse. Analysis of the WebUni Online Student Community, *Dipl.-Inform.*, Otto-von-Guericke-Universität Magdeburg, 2010.
- Stephan Spiegel. A Hybrid Approach to Recommender Systems based on Matrix Factorization, *Dipl.-Inform.*, Technische Universität Berlin, 2009.
- Christian Banik. Recommending Wiki Articles using Collaborative Filtering, *Dipl.-Inform.*, Technische Universität Berlin, 2009.
- Iris Breddin. Untersuchung der Klassifizierbarkeit und Klassifikation von Schweißnahtdaten, *Dipl.-Inform.*, Technische Universität Berlin, 2008.

## Publications

- [1] Fairness on the web: Alternatives to the power law. Jérôme Kunegis and Julia Preusse. In *Proc. Web Science Conf.*, 2012.
- [2] Spectral evolution in dynamic networks. Jérôme Kunegis, Damien Fay, and Christian Bauckhage. *J. Knowledge and Information Systems*, 2012.
- [3] Diversity dynamics in online networks. Jérôme Kunegis, Sergej Sizov, Felix Schwagerleit, and Damien Fay. In *Proc. Conf. on Hypertext and Social Media*, 2012.
- [4] [KONECT Cloud – large scale network mining in the cloud](#). Jérôme Kunegis. In *Future SOC Lab Reports*, HPI Technical Report Series, April 2012.
- [5] [LiveTweet: Monitoring and predicting interesting microblog posts](#). Arifah Che Alhadi, Thomas Gottron, Jérôme Kunegis, and Nasir Naveed. In *Proc. European Conf. on Information Retrieval Demonstrations*, pages 569–570, 2012.
- [6] [LiveTweet: Microblog retrieval based on interestingness and an adaptation of the vector space model](#). Arifah Che Alhadi, Thomas Gottron, Jérôme Kunegis, and Nasir Naveed. In *Proc. Text Retrieval Conference*, 2011.
- [7] [Searching microblogs: Coping with sparsity and document quality](#). Nasir Naveed, Thomas Gottron, Jérôme Kunegis, and Arifah Che Alhadi. In *Proc. Int. Conf. on Information and Knowledge Management*, pages 183–188, 2011.
- [8] [Discriminating graphs through spectral projections](#). Damien Fay, Hamed Haddadi, Steve Uhlig, Liam Kilmartin, Andrew W. Moore, Jérôme Kunegis, and Marios Iliofotou. *Computer Networks*, 55(15):3458–3468, 2011.
- [9] [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.
- [10] [One community does not rule them all](#). Thomas Gottron, Jérôme Kunegis, Ansgar Scherp, and Steffen Staab. In *Proc. Web Science Conf.*, 2011.
- [11] [Link prediction on evolving data using tensor factorization](#). Stephan Spiegel, Jan Clausen, Sahin Albayrak, and Jérôme Kunegis. In *Proc. Workshop on Behavior Informatics*, 2011.
- [12] [On joint diagonalisation for dynamic network analysis](#). Damien Fay, Jérôme Kunegis, and Eiko Yoneki. Technical report, University of Cambridge, 2011.
- [13] [Exploiting hierarchical tags for context-awareness](#). Alan Said, Jérôme Kunegis, Ernesto William De Luca, and Sahin Albayrak. In *Proc. Workshop on Exploiting Semantic Annotations for Information Retrieval*, pages 35–36, 2010.
- [14] [Network growth and the spectral evolution model](#). Jérôme Kunegis, Damien Fay, and Christian Bauckhage. In *Proc. Int. Conf. on Information and Knowledge Management*, pages 739–748, 2010.
- [15] [The link prediction problem in bipartite networks](#). Jérôme Kunegis, Ernesto W. De Luca, and Sahin Albayrak. In *Proc. Int. Conf. in Information Processing and Management of Uncertainty in Knowledge-based Systems*, pages 380–389, 2010.
- [16] [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.
- [17] [Multilingual ontology-based user profile enrichment](#). Ernesto W. De Luca, Till Plumbaum, Jérôme Kunegis, and Sahin Albayrak. In *Proc. Workshop on the Multilingual Semantic Web*, pages 41–42, 2010.
- [18] [Connecting senior citizens through interactive TV](#). Barış Karataş, Torsten Schmidt, Jérôme Kunegis, and Till Plumbaum. In *Proc. Ambient Assisted Living*, 2010.

- [19] [The Universal Recommender](#), Jérôme Kunegis, Alan Said, and Winfried Umbrath. White paper, 2009.
- [20] [Learning spectral graph transformations for link prediction](#). Jérôme Kunegis and Andreas Lommatzsch. In *Proc. Int. Conf. on Machine Learning*, pages 561–568, 2009.
- [21] [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.
- [22] [Hydra: A hybrid recommender system \[cross-linked rating and content information\]](#). Stephan Spiegel, Jérôme Kunegis, and Fang Li. In *Proc. Workshop on Complex Networks in Information and Knowledge Management*, pages 75–80, 2009.
- [23] [Modeling collaborative similarity with the signed resistance distance kernel](#). Jérôme Kunegis, Stephan Schmidt, Christian Bauckhage, Martin Mehlitz, and Sahin Albayrak. In *Proc. European Conf. on Artificial Intelligence*, pages 261–265, 2008.
- [24] [Alternative similarity functions for graph kernels](#). Jérôme Kunegis, Andreas Lommatzsch, and Christian Bauckhage. In *Proc. Int. Conf. on Pattern Recognition*, 2008.
- [25] [On the scalability of graph kernels applied to collaborative recommenders](#). Jérôme Kunegis, Andreas Lommatzsch, Christian Bauckhage, and Sahin Albayrak. In *Proc. ECAI Workshop on Recommender Systems*, pages 35–38, 2008.
- [26] [Assessing the value of unrated items in collaborative filtering](#). Jérôme Kunegis, Andreas Lommatzsch, Martin Mehlitz, and Sahin Albayrak. In *Proc. Int. Conf. on Digital Information Management*, pages 212–216, 2007.
- [27] [Adapting ratings in memory-based collaborative filtering using linear regression](#). Jérôme Kunegis and Sahin Albayrak. In *Proc. Int. Conf. on Information Reuse and Integration*, 2007.
- [28] [Collaborative filtering using electrical resistance network models with negative edges](#). Jérôme Kunegis and Stephan Schmidt. In *Proc. Industrial Conf. on Data Mining*, pages 269–282, 2007.
- [29] [Scalable bandwidth optimization in advance reservation networks](#). Stephan Schmidt and Jérôme Kunegis. In *Proc. Int. Conf. on Networks*, pages 95–100, 2007.
- [30] [Resource-aware update policy for highly dynamic P2P networks](#). Dragan Milošević, Jérôme Kunegis, and Sahin Albayrak. In *Proc. WI Workshops*, 2007.
- [31] [Using novel IR measures to learn optimal cluster structures for web information retrieval](#). Martin Mehlitz, Jérôme Kunegis, and Sahin Albayrak. In *Proc. Int. Conf. Web Intelligence*, 2007.
- [32] [A new evaluation measure for information retrieval systems](#). Martin Mehlitz, Christian Bauckhage, Jérôme Kunegis, and Sahin Albayrak. In *Proc. Int. Conf. on Systems, Man and Cybernetics*, 2007.
- [33] [A multi-agent framework for personalized information filtering](#). Andreas Lommatzsch, Martin Mehlitz, and Jérôme Kunegis. In *Proc. German e-Science*, 2007.
- [34] [Ein graduales Community-Modell zur Bildung wissenschaftlicher Gemeinschaften](#). Michael Hahne, Corinna Jung, Jérôme Kunegis, Andreas Lommatzsch, and André Paus. In *Analyse sozialer Netzwerke und Social Software – Grundlagen und Anwendungsbeispiele*, 2007.

## Invited Talks

- 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.
- Time-aware Centrality in Contact Network Analysis. Eiko Yoneki, Damien Fay, Jérôme Kunegis. European Conference on Complex Systems, 2011.
- On the Spectral Evolution of Large Networks. Fraunhofer IAIS, St. Augustin, 2011.
- On the Spectral Evolution of Large Networks. Berlin Institute of Technology, 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

- KONECT – The Koblenz Network Collection. 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.
- [On the Spectral Evolution of Large Networks](#). Postersession für Nachwuchswissenschaftler/innen, University of Koblenz–Landau, 2011.
- [On the Spectral Evolution of Large Networks](#). SIAM Conf. on Data Mining Doctoral Forum, 2010.

## Demonstrations and Presentations

- LiveTweet: Monitoring and Predicting Interesting Microblog Posts, [European Conference on Information Retrieval \(ECIR\)](#), 2012.
- Schülerinformationstage, Institute for Web Science and Technologies, University of Koblenz–Landau, 2012.
- Schülerinformationstage, Institute for Web Science and Technologies, University of Koblenz–Landau, 2011.
- PIA, Spree, CeBIT, 2010.
- PIA+COMM, CeBIT, 2007.
- PIA, Lange Nacht der Wissenschaften Berlin/Potsdam, 2006.

**Awards**

- Student Travel Award, Int. Conf. on Information and Knowledge Management, 2010.
- Student Travel Fellowship Award, SIAM Conf. on Data Mining, 2010.
- Best Paper Runner-up, Industrial Conference on Data Mining, 2007.

**Miscellaneous**

- Birthday: 1981-03-27.
- Languages: French (first language), German (first language), English (advanced).
- Main programming languages: C, C++, Java, Matlab, Bourne Shell.
- Secondary programming languages: Perl, BASIC, Logo, Turbo Pascal, PHP.
- Technologies: SED, Makefile, Latex, HTML.