

# Philipp Singer

## Publications

✉ [me@philippsinger.info](mailto:me@philippsinger.info)  
📄 [www.philippsinger.info](http://www.philippsinger.info)

---

### Selected Peer-reviewed Publications

- 2017 Martin Becker, Florian Lemmerich, **Philipp Singer**, Markus Strohmaier and Andreas Hotho. **MixedTrails: Bayesian Hypothesis Comparison on Heterogeneous Sequential Data**. *Data Mining and Knowledge Discovery*, 2017.
- 2017 **Philipp Singer\***, Florian Lemmerich\*, Robert West, Leila Zia, Ellery Wulczyn, Markus Strohmaier and Jure Leskovec. **Why We Read Wikipedia**. *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2017 **Philipp Singer\***, Claudia Wagner\*, Fariba Karimi, Jürgen Pfeffer and Markus Strohmaier. **Sampling from social networks with attributes**. *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2017 **Philipp Singer\***, Dimitar Dimitrov\*, Florian Lemmerich and Markus Strohmaier. **What Makes a Link Successful on Wikipedia?**. *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2016 Florian Lemmerich, Martin Becker, **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **Mining Subgroups with Exceptional Transition Behavior**. *22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, San Francisco, USA, 2016. (CORE A\* conference, full paper acceptance rate 70/784, 9% quota)
- 2015 **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **HypTrails: A Bayesian Approach for Comparing Hypotheses About Human Trails on the Web**. *24th International World Wide Web Conference*, Florence, Italy, 2015. (CORE A\* conference, acceptance rate 131/929, 14.1% quota) **best paper award**
- 2014 **Philipp Singer**, Denis Helic, Behnam Taraghi and Markus Strohmaier. **Detecting Memory and Structure in Human Navigation Patterns Using Markov Chain Models of Varying Order**. *PLoS ONE*, vol 9(7), 2014. (2014 Impact Factor 3.234)

---

### Peer-reviewed Journal Publications

- 2017 Martin Becker, Florian Lemmerich, **Philipp Singer**, Markus Strohmaier and Andreas Hotho. **MixedTrails: Bayesian Hypothesis Comparison on Heterogeneous Sequential Data**. *Data Mining and Knowledge Discovery*, 2017.
- 2017 **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **A Bayesian Method for Comparing Hypotheses About Human Trails**. *ACM Transactions on the Web*, vol 11(3), 2017. (2014 Impact Factor 1.255)
- 2017 Lisette Espín-Noboa, Florian Lemmerich, Markus Strohmaier and **Philipp Singer**. **JANUS: A hypothesis-driven Bayesian Approach for Understanding Edge Formation in Attributed Multigraphs**. *Applied Network Science*, vol 2(16), 2017.
- 2016 **Philipp Singer**, Emilio Ferrara, Farshad Kooti, Markus Strohmaier, and Kristina Lerman. **Evidence of Online Performance Deterioration in User Sessions on Reddit**. *PLoS ONE*, vol 9(7), 2014. (2014 Impact Factor 3.234)
- 2016 Stephan Dörfel, Daniel Zoller, **Philipp Singer**, Thomas Niebler, Andreas Hotho and Markus Strohmaier. **What Users Actually do in a Social Tagging System - A Study of User Behavior in BibSonomy**. *ACM Transactions on the Web*, vol 10(2), 14:1–14:32, 2016. (2014 Impact Factor 1.255)
- 2015 Simon Walk, **Philipp Singer**, Markus Strohmaier, Denis Helic, Natalya F Noy and Mark A. Musen. **How to Apply Markov Chains for Modeling Sequential Edit Patterns in Collaborative Ontology-Engineering Projects**. *International Journal of Human-Computer Studies*, vol 84, 51-66, 2015. (2015 Impact Factor 1.476)

- 2015 Claudia Wagner, **Philipp Singer** and Markus Strohmaier. **The Nature and Evolution of Online Food Preferences.** *EPJ Data Science*, vol 3(38), 2015. (2015 Impact Factor 1.567)
- 2014 **Philipp Singer**, Denis Helic, Behnam Taraghi and Markus Strohmaier. **Detecting Memory and Structure in Human Navigation Patterns Using Markov Chain Models of Varying Order.** *PLoS ONE*, vol 9(7), 2014. (2014 Impact Factor 3.234)
- 2014 Simon Walk, **Philipp Singer**, Markus Strohmaier, Tania Tudorache, Mark A. Musen and Natalya F. Noy. **Discovering Beaten Paths in Collaborative Ontology-Engineering Projects using Markov Chains.** *Journal of Biomedical Informatics (JBI)*, vol 51, 254-271, 2014. (2015 Impact Factor 2.447)
- 2014 Claudia Wagner, **Philipp Singer**, Markus Strohmaier and Bernardo Huberman. **Semantic Stability and Implicit Consensus in Social Tagging Streams.** *IEEE Transactions on Computational Social Systems*, vol 1(1), 108-120, 2014.
- 2014 **Philipp Singer**, Thomas Niebler, Markus Strohmaier and Andreas Hotho. **Computing Semantic Relatedness from Human Navigational Paths: A Case Study on Wikipedia.** *International Journal on Semantic Web and Information Systems (IJSWIS)*, 2014. (2014 Impact Factor 0.903)

---

## Peer-reviewed Conference Publications

- 2017 **Philipp Singer\***, Florian Lemmerich\*, Robert West, Leila Zia, Ellery Wulczyn, Markus Strohmaier and Jure Leskovec. **Why We Read Wikipedia.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2017 **Philipp Singer\***, Claudia Wagner\*, Fariba Karimi, Jürgen Pfeffer and Markus Strohmaier. **Sampling from social networks with attributes.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2017 **Philipp Singer\***, Dimitar Dimitrov\*, Florian Lemmerich and Markus Strohmaier. **What Makes a Link Successful on Wikipedia?.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A\* conference, acceptance rate 164/966, 17% quota)
- 2016 Lisette Espín-Noboa, Florian Lemmerich, Markus Strohmaier and **Philipp Singer.** **A Hypotheses-driven Bayesian Approach for Understanding Edge Formation in Attributed Multigraphs.** *5th International Workshop on Complex Networks and their Applications*, Milan, Italy, 2016.
- 2016 Florian Lemmerich, Martin Becker, **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **Mining Subgroups with Exceptional Transition Behavior.** *22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, San Francisco, USA, 2016. (CORE A\* conference, full paper acceptance rate 70/784, 9% quota)
- 2015 Martin Becker, **Philipp Singer**, Florian Lemmerich, Andreas Hotho, Denis Helic and Markus Strohmaier. **Photowalking the City: Comparing Hypotheses About Urban Photo Trails on Flickr.** *7th International Conference on Social Informatics*, Beijing, China, 2015.
- 2015 Simon Walk, **Philipp Singer**, Lisette Espín Noboa, Tania Tudorache, Mark A. Musen and Markus Strohmaier. **Understanding How Users Edit Ontologies: Comparing Hypotheses About Four Real-World Projects.** *4th International Semantic Web Conference*, Bethlehem, Pennsylvania, USA, 2015. (CORE A conference, acceptance rate 38/172, 22% quota)
- 2015 Dimitar Dimitrov, **Philipp Singer**, Denis Helic and Markus Strohmaier. **The Role of Structural Information for Designing Navigational User Interfaces.** *26th ACM Conference on Hypertext and Social Media*, Cyprus, 2015. (CORE A conference)
- 2015 **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **HypTrails: A Bayesian Approach for Comparing Hypotheses About Human Trails on the Web.** *24th International World Wide Web Conference*, Florence, Italy, 2015. (CORE A\* conference, acceptance rate 131/929, 14.1% quota) **best paper award**

\* equal contribution

- 2014 **Philipp Singer\***, Simon Walk\*, and Markus Strohmaier. **Sequential Action Patterns in Collaborative Ontology Engineering Projects: A Case-study in the Biomedical Domain.** *23rd ACM Conference on Information and Knowledge Management*, Shanghai, China, 2014. (CORE A conference, acceptance rate 95/457, 20.80% quota)
- 2014 **Philipp Singer\***, Claudia Wagner\*, Markus Strohmaier and Bernardo Huberman . **Semantic Stability in Social Tagging Streams.** *23rd International World Wide Web Conference*, Seoul, South Korea, 2014. (CORE A\* conference, acceptance rate 84/650, 12.90% quota)
- 2014 **Philipp Singer\***, Fabian Flöck\*, Clemens Meinhart, Elias Zeitfogel and Markus Strohmaier; **Evolution of Reddit: From the Front Page of the Internet to a Self-referential Community?;** *Web Science Track at the 23rd International World Wide Web Conference*, Seoul, South Korea, 2014
- 2014 **Philipp Singer.** **Understanding, Leveraging and Improving Human Navigation on the Web (PhD Symposium).** *23rd International World Wide Web Conference*, Seoul, South Korea, 2014.
- 2013 Claudia Wagner, **Philipp Singer**, Lisa Posch and Markus Strohmaier. **The Wisdom of the Audience: An Empirical Study of Social Semantics in Twitter Streams.** *10th Extended Semantic Web Conference (ESWC 2013)*, Montpellier, France, 2013. (CORE A conference, acceptance rate 42/162, 25.90% quota)
- 2013 Thomas Niebler, **Philipp Singer**, Dominik Benz, Christian Körner, Markus Strohmaier and Andreas Hotho. **How Tagging Pragmatics Influence Tag Sense Discovery in Social Annotation Systems.** *35th European Conference On Information Retrieval*, Moscow, Russia, 2013 (acceptance rate 30/191, 16% quota)
- 2012 Christoph Trattner, **Philipp Singer**, Denis Helic and Markus Strohmaier. **Exploring the Differences and Similarities of Hierarchical Decentralized Search and Human Navigation in Information Networks.** *12th International Conference on Knowledge Management and Knowledge Technologies*, Graz, Austria, 2012, **best paper award**
- 2012 Karin Schöfegger, Christian Körner and **Philipp Singer.** **Learning User Characteristics from Social Tagging Behavior.** *23rd ACM Conference on Hypertext and Social Media*, Milwaukee, Wisconsin, USA, 2012 (CORE A conference)

---

## Peer-reviewed Workshop Publications

- 2016 Lisette Espín-Noboa, Florian Lemmerich, **Philipp Singer** and Markus Strohmaier. **Discovering and Characterizing Mobility Patterns in Urban Spaces: A Study of Manhattan Taxi Data.** *6th International Workshop on Location and the Web at WWW2016*, Montreal, Canada, 2016.
- 2013 Lisa Posch, Claudia Wagner, **Philipp Singer** and Markus Strohmaier. **Meaning as Collective Use: Predicting Hashtag Semantics on Twitter.** *3rd workshop on Making Sense of Microposts at WWW 2013*, Rio de Janeiro, Brazil, 2013.
- 2012 **Philipp Singer**, Claudia Wagner and Markus Strohmaier. **Understanding Co-evolution of Social and Content Networks on Twitter** *22nd workshop on Making Sense of Microposts at WWW 2012*, Lyon, France, 2012

---

## Peer-reviewed Poster & Demo Publications

- 2016 Dimitar Dimitrov, **Philipp Singer**, Florian Lemmerich and Markus Strohmaier. **Visual Positions of Links and Clicks on Wikipedia.** *25th International World Wide Web Conference*, Montreal, Canada, 2016.
- 2015 Martin Becker, **Philipp Singer**, Florian Lemmerich, Andreas Hotho, Denis Helic and Markus Strohmaier. **VizTrails: An Information Visualization Tool for Exploring Geographic Movement Trajectories.** *26th ACM Conference on Hypertext and Social Media*, Cyprus, 2015.
- 2015 Claudia Wagner, **Philipp Singer** and Markus Strohmaier. **Spatial and Temporal Patterns of Online Food Preferences.** *Web-Science Track at the 23rd International World Wide Web Conference*, Seoul, South Korea, 2014.

- 2014 Stephan Dörffel, Daniel Zoller, **Philipp Singer**, Thomas Niebler, Andreas Hotho and Markus Strohmaier. **How Social is Social Tagging?**. *23rd International World Wide Web Conference*, Seoul, South Korea, 2014.
- 2013 **Philipp Singer**, Thomas Niebler, Markus Strohmaier and Andreas Hotho. **Computing Semantic Relatedness from Human Navigational Paths on Wikipedia**. *22nd International World Wide Web Conference*, Rio de Janeiro, Brazil, 2013.

---

## Book Chapters

- 2012 **Philipp Singer**, Claudia Wagner and Markus Strohmaier. **Factors Influencing the Co-evolution of Social and Content Networks in Online Social Media** *Modeling and Mining Ubiquitous Social Media, Lecture Notes in Computer Science Volume 7472*, Springer Verlag, Heidelberg, Germany, 2012
- 2012 **Philipp Singer**, Thomas Niebler, Markus Strohmaier and Andreas Hotho. **Folksonomies**. *Encyclopedia of Social Network Analysis and Mining (accepted for print)*, Springer, 2012.
- 2012 **Philipp Singer**, Markus Strohmaier and Denis Helic. **Social Bookmarking**. *Web 2.0 und Social Media in der Unternehmenspraxis, Grundlagen, Anwendungen und Methoden mit zahlreichen Fallstudien (in German)*, Oldenbourg, 2012.

---

## Tutorials

- 2016 Philipp Singer and Florian Lemmerich. **Analyzing Sequential User Information on the Web**. *25th International World Wide Web Conference*, Montreal, Canada, 2016.