

# Kevin Roitero

Current Position: Ph.D. Candidate at University of Udine (end date: 1 November 2019).

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## EXPERIENCE

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- **Spotify** London, GBR  
*Research Intern* Sept 2018 – Dec 2018  
Tasks: Statistical modeling, machine and transfer learning techniques to model internal processes.  
Manager: Mounia Lalmas-Roelleke (Director, Tech Research).

## EDUCATION

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- **Ph.D. Candidate** Udine, ITA.  
*Department of Mathematics, computer Science, and Physics.* Nov 2016 – Present  
Focus: Information retrieval, crowd-sourcing, machine and transfer learning, data mining and analysis, and statistical modeling. Scholarship provided by University of Udine.
- **School of Information Technology and Electrical Engineering, UQ.** Brisbane, AUS.  
*Short visiting period (as PhD Student) to visit Gianluca Demartini.* 23 July 2018 – 30 July 2018
- **ISAR Group, RMIT University.** Melbourne, AUS.  
*Visiting period (as PhD Student). Grant by the ISAR Group.* Mar 2018 – July 2018
- **Information School, University of Sheffield.** Sheffield, GBR.  
*Visiting period (as PhD Student). Grant by ERASMUS+ Traineeship.* Apr 2017 – June 2017
- **University of Udine & Alpen-Adria-Universität** Udine, ITA & Klagenfurt, AUT  
*Master Joint Degree in International Computer Science.* Sept 2014 – July 2016  
Grade: cum laude (110 cum laude/110).
- **Alpen-Adria-Universität** Klagenfurt, AUT  
*Visiting period (as Master Student). Grant by University of Udine and ERASMUS.* Sept 2014 – Feb 2016
- **University of Udine** Udine, ITA  
*Bachelor Degree in Computer Science.* Sept 2014 – Oct 2016  
Grade: 102/110.

## PUBLICATIONS

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- **Personal Website (includes accepted publications):** <https://kevinroitero.com/#publications>
- **Google Scholar:** <https://scholar.google.com/citations?hl=en&user=1xd52jMAAAAJ>
- **DBLP:** <https://dblp.uni-trier.de/pers/hd/r/Roitero:Kevin>

### Year: 2020

- **Crowd Worker Strategies in Relevance Judgment Tasks.**  
*Lei Han, Eddy Maddalena, Alessandro Checco, Cristina Sarasua, Ujwal Gadiraju, Kevin Roitero, and Gianluca Demartini*  
Proceedings of the 13th ACM International Conference on Web Search and Data Mining, WSDM 2020, Houston, Texas. February 3-7, 2020. Conference Rank: A\*

### Year: 2019

- **Bias and Fairness in Effectiveness Evaluation by Means of Network Analysis and Mixture Models.**  
*Michael Soprano, Kevin Roitero, and Stefano Mizzaro.*  
Proceedings of the 10th Italian Information Retrieval Workshop, Padua, Italy, September 16-18, 2019.
- **Towards Stochastic Simulations of Relevance Profiles.**  
*Kevin Roitero, Andrea Brunello, Julián Urbano and Stefano Mizzaro.*  
Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM2019). Beijing, China. November 3-7, 2019. Conference Rank: A
- **On Transforming Relevance Scales.**  
*Lei Han, Kevin Roitero, Eddy Maddalena, Stefano Mizzaro and Gianluca Demartini.*  
Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM2019). Beijing, China. November 3-7, 2019. Conference Rank: A
- **HITS Hits Readersourcing: Validating Peer Review Alternatives Using Network Analysis.**

*Michael Soprano, Kevin Roitero, and Stefano Mizzaro.*

Proceedings of the 4th Joint Workshop on Bibliometric-enhanced Information Retrieval and Natural Language Processing for Digital Libraries (BIRNDL 2019).

- **Fewer Topics? A Million Topics? Both?! On Topics Subsets in Test Collections.**

*Kevin Roitero, J. Shane Culpepper, Mark Sanderson, Falk Scholer, and Stefano Mizzaro*

Information Retrieval Journal (IRJ).

- **On Topic Difficulty in IR Evaluation: The Effect of Corpora, Systems, and System Components.**

*Shane Culpepper, Oren Kurland, Stefano Mizzaro, Kevin Roitero and Fabio Zampieri.*

Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval. Paris, France. July 21-25, 2019. Conference Rank: A\*

- **All Those Wasted Hours: On Task Abandonment in Crowdsourcing.**

*Lei Han, Kevin Roitero, Ujwal Gadiraju, Cristina Sarasua, Alessandro Checco, Eddy Maddalena and Gianluca Demartini.*

ACM International Conference on Web Search and Data Mining, WSDM 2019, Melbourne, Australia. Conference Rank: A\*

### **Year: 2018**

- **How Many Truth Levels? Six? One Hundred? Even more? Validating Truthfulness of Statements via Crowdsourcing.**

*Kevin Roitero, Damiano Spina, Gianluca Demartini, and Stefano Mizzaro.*

RDSM 2018 : Workshop on Rumours and Deception in Social Media.

- **Reproduce. Generalize. Extend. On Information Retrieval Evaluation without Relevance Judgments.**

*Kevin Roitero, Marco Passon, Giuseppe Serra, and Stefano Mizzaro.*

ACM Journal of Data and Information Quality (JDIQ).

- **Reproduce and Improve: An Evolutionary Approach to Select a Few Good Topics for Information Retrieval Evaluation.**

*Kevin Roitero, Michael Soprano, Andrea Brunello, and Stefano Mizzaro.*

ACM Journal of Data and Information Quality (JDIQ).

- **On Fine-Grained Relevance Scales.**

*Kevin Roitero, Eddy Maddalena, Gianluca Demartini and Stefano Mizzaro.*

Proceedings of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A. July 8-12, 2018. Conference Rank: A\*

- **Query Performance Prediction and Effectiveness Evaluation Without Relevance Judgments: Two Sides of the Same Coin.**

*Stefano Mizzaro, Josiane Mothe, Kevin Roitero, and Md Zia Ullah.*

Proceedings of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A. July 8-12, 2018. Conference Rank: A\*

- **IRevalOO: An Object Oriented Framework for Retrieval Evaluation.**

*Kevin Roitero, Eddy Maddalena, Ponte Yannick and Stefano Mizzaro.*

Proceedings of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A. July 8-12, 2018. Conference Rank: A\*

- **Effectiveness Evaluation with a Subset of Topics: A Practical Approach.**

*Kevin Roitero, Michael Soprano and Stefano Mizzaro.*

Proceedings of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A. July 8-12, 2018. Conference Rank: A\*

- **CHeap and Engineered Evaluation of Retrieval Systems.**

*Kevin Roitero.*

Doctoral Consortium of the 41st International ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A. July 8-12, 2018. Conference Rank: A\*

### **Year: 2017**

- **Let's Agree to Disagree: Fixing Agreement Measures for Crowdsourcing.**

*Alessandro Checco, Kevin Roitero, Eddy Maddalena, Gianluca Demartini and Stefano Mizzaro.*

Proceedings of the The fifth AAAI Conference on Human Computation and Crowdsourcing, AAAI HCOMP2017. Quebec City, Canada. October 24-26 2017.

- **Considering Assessor Agreement in IR Evaluation.**

*Eddy Maddalena, Kevin Roitero, Gianluca Demartini and Stefano Mizzaro.*

Proceedings of the 3rd ACM International Conference on the Theory of Information Retrieval, ICTIR2017. Amsterdam, Netherlands. October 1-4 2017.

- **Economic Evaluation of Recommender Systems: A Proposal.**

*Kevin Roitero, Stefano Mizzaro, and Giuseppe Serra.*

Proceedings of the 8th Italian Information Retrieval Workshop, Switzerland. June 05-07, 2017.

- **Do Easy Topics Predict Effectiveness Better Than Difficult Topics?**

*Kevin Roitero, Eddy Maddalena, and Stefano Mizzaro.*

Proceedings of the 39th European Conference on IR Research, ECIR 2017, Aberdeen, UK, April 8-13, 2017.

Conference Rank: A

**Year: 2016**

- **Improving the Efficiency of Retrieval Effectiveness Evaluation: Finding a Few Good Topics with Clustering?**

*Kevin Roitero and Stefano Mizzaro.*

Proceedings of the 7th Italian Information Retrieval Workshop, Venezia, Italy, May 30-31, 2016.

## TALKS

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- **25 July 2019.** HITS Hits Readersourcing: Validating Peer Review Alternatives Using Network Analysis. *ACM SIGIR Conference on Research and Development in Information Retrieval. Paris, France.*
- **7 June 2019.** Economical Evaluation of Systems: Users as a Signal. *Spotify NYC.*
- **15 March 2019.** Let's Agree to Disagree: Fixing Agreement Measures for Crowdsourcing. *European Network for Combining Language Learning with Crowdsourcing Techniques, enetCollect. Lisbon.*
- **14 November 2018.** Internal Research Talk. *Spotify. London, Great Britain.*
- **11 July 2018.** On fine Grained Relevance Scales. *ACM SIGIR Conference on Research and Development in Information Retrieval. Ann Arbor Michigan, U.S.A.*
- **17 May 2018.** iPython notebooks for data analysis and plotting. *RMIT University, Melbourne, Australia.*
- **10 May 2018.** Crowdsourcing relevance judgments and considering agreement in IR evaluation (with a new agreement measure) *RMIT University, Melbourne, Australia.*
- **6 June 2017.** Economic Evaluation of Recommender Systems: A Proposal. *IIR2017, Lugano. Switzerland.*
- **10 April 2017.** Do Easy Topics Predict Effectiveness Better Than Difficult Topics? *ECIR2017, Aberdeen. UK.*
- **30 May 2016.** Improving the Efficiency of Retrieval Effectiveness Evaluation: Finding a Few Good Topics with Clustering? *IIR 2016, Venezia. Italy.*
- **12 May 2016.** Improving the Efficiency of Retrieval Effectiveness Evaluation: Finding a Few Good Topics with Clustering and Dimensionality Reduction. *MSc Course Web Information Retrieval). University of Udine, Udine. Italy.*

## ACADEMIC ACTIVITY AND SKILLS

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- **Teaching:** I delivered: modules of the “Social Computing” course at University of Udine in 2019-2020 (Internet of Things, Big data & Web MSc), “Operating Systems Laboratory” course at University of Udine in 2016-2017 (Computer Science BSc).
- **Mentoring:** I co-supervised the thesis of 6 Master (MSC), 3 Bachelor (BSC) Students, and various students advanced projects and seminars. Many of the thesis lead to published results. One Master Thesis received the prize FIDAPA: “Non ci sono mestieri da donne”.
- **Reviewing Process:** I served as a reviewer in: IIR2018, ECIR2018.

## SKILLS

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- **Networking:** I worked with various non-homogeneous research groups, building many research partnerships.
- **Technical:** Proficient in: Python, R, NumPy, SciPy, Pandas, Keras, TensorFlow, PyMC3, SQL, Javascript, BigQuery, L<sup>A</sup>T<sub>E</sub>X. Familiar with: Java, HTML, CSS, C, WEKA; Basic knowledge of: MATLAB, Scala.
- **Platforms/tools:** GitHub, Google Cloud Suite, Jupyter Notebooks, Slack, Amazon AWS, Figure Eight, Amazon Mechanical Turk, Docker, Office Suite, Linux Shell, Dropbox, Google Drive.
- **Languages:** Italian (Mother tongue), English (Listening: C1, Reading: C1, Spoken Interaction: C1, Spoken Production: C1, Writing: C1).
- **Personal Interests:** eager reader, decent runner (12km/1h), film and series watcher, music enthusiast; trying to be the nerd the world needs; keen to minimalism, the art of giving importance to things that really matter.

## HONORS, AWARDS, AND GRANTS

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- Research Grant with title “Crowdsourcing an Online Safety Benchmark for Fake News Identification”. Provided by Facebook Research. Call title: “The Online Safety Benchmark”. Role: Participant.
- Student Grant to attend “ASIRF2019”, Schloss Dagstuhl, Germany. Provided by ASIRF.
- Student Grant to attend “SIGIR2019”, Paris, France. Provided by ACM SIGIR.
- Participation in the 7th Heidelberg Laureate Forum. Provided by Heidelberg Laureate Forum Foundation (HLFF).
- Invited Talk to European Network for Combining Language Learning with Crowdsourcing Techniques 2019.
- Student Grant to attend “SIGIR2018”, Ann Arbor, Michigan, U.S.A. Provided by ACM SIGIR.
- Allowance to visit RMIT ISAR Group at RMIT University, Melbourne, AUS. Provided by RMIT ISAR.
- Student Grant to attend “ICTIR2017”, Amsterdam, NE. Provided by ACM SIGIR.
- Allowance to visit Information School at University of Sheffield, UK. Provided by ERASMUS+ Traineeship.
- Student Grant to attend “ECIR2017”, Aberdeen, UK. Provided by BCS IRGS.
- Allowance to visit Alpen-Adria-Universität Kalgenfurt, AU. Provided by University of Udine, and ERAMUS Project.