

Alessandro Checco

Information School
University of Sheffield
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Academic Employment

Information School University of Sheffield, UK Research Associate Scientific Director of H2020-funded project FashionBrain	Jan 2017 - present
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Information School University of Sheffield, UK Research Associate EPSRC-funded project BetterCrowd on Crowdsourcing and recommender systems	Apr 2016 - Dec 2016
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School of Computer Science and Statistics Trinity College Dublin, Ireland Postdoctoral Researcher Science Foundation Ireland-funded project on private recommender systems	Jan 2016 - Mar 2016
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School of Computer Science and Statistics Trinity College Dublin, Ireland Postdoctoral Researcher Private recommender systems and private search engines	Jan 2015 - Dec 2016
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Academic Education

Hamilton Institute , Dublin, Ireland PhD in Mathematics <i>Decentralised Algorithms for Wireless Networks</i> Supervisor: Prof. Doug Leith	Apr 2010 - Oct 2014
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University of Rome "Tor Vergata" , Italy M.Sc.(cum laude) in Mathematical Engineering <i>Monte Carlo Markov Chain methods for the approximate solutions of feature selection problems</i> Supervisor: Prof. Benedetto Scoppola	Sept 2007 - Jan 2010
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Universiteit Gent, Belgium

Jan 2009 - Aug 2009

Erasmus Scholarship

Queuing Behaviour of Statistical Multiplexer with Spacing

Supervisor: Prof. Sabine Wittevrongel

University of Roma "Tor Vergata", Italy

Sept 2004 - Aug 2007

B.Sc.(cum laude) in Mathematical Engineering

Wavelet analysis for recognition of form document images

with complicated background

Supervisor: Dr. Andrea Del Re

Industry Experience

Bell Laboratories Ireland

2011 - 2012

Internship

Decentralised algorithms design for scrambling code selection

in femtocell networks

Research Interests

Crowdsourcing for Human Computation, Distributed Private Recommender Systems, Information Retrieval, Data Privacy, Distributed Systems, User Data Obfuscation in Web Systems, Societal and Economic Analysis of Online Work, Crowd Workers Unionisation, Algorithmic Bias, Techniques to improve Transparency in Clinical Trials Design.

Research Grants

Principal investigator for Technology Innovation Development Award (TIDA) 2016 on Privacy issues in recommender systems and probabilistic matrix factorisation. **Grant of 50,000 EUR**

Principal investigator for University of Sheffield Seed Funding on Worker-employer interaction in paid crowdsourcing (negotiation phase)

Teaching

Guest lecturer at University of Zurich (March 2018)

Coordination of second part of Big Data Analytics module (summer 2017)

Assignments Grading, for Big data Analytics module, University of Sheffield, first quarter 2017

Tutorials on jupyter and pandas, meetings with student for Big data Analytics module, University of Sheffield, first quarter 2017

Tutorials on pyspark, meetings with students for Big Data Analytics module, University of Sheffield, first quarter 2017

Supervision

Various master student projects on data science for fashion

PhD student on detecting evidence of profiling from a search engine in Trinity College (in collaboration with IBM)

Master student project on recommender systems in Trinity College Dublin

PhD student project on class imbalance in crowdsourcing In Sheffield University, Computer Science Department

PhD student project on effectiveness evaluation of Information Retrieval systems in Sheffield University

PhD student project on ontology augmentation via crowdsourcing, Fribourg University

Current University Administration Roles

Scientific Director of the H2020 FashionBrain project

Big Data cluster (Hadoop, Spark), University of Sheffield

GPU high performance computer, University of Sheffield

Member of steering committee of H2020-ICT-2016-1 FashionBrain project

Member of technical committee of H2020-ICT-2016-1 FashionBrain project

Previous University Administration Roles

GPU high performance simulators development, Trinity College, Dublin

Invited Speaker

"Human Computation and Crowdsourcing - Questions and Challenges" at Pompeu Fabra University, 17th of February 2017

"Wikidata editors behaviour and social computing" at University of Zurich, March 2018

Publications

Refereed Publications: 15. Citations: 116, h-index: 7.

Book Chapters – in Print

Bellalta, B., Zocca, A., Cano, C., **Checco, A.**, Barceló, J., & Vinel, A. V. (2014). Throughput Analysis in CSMA/CA Networks Using Continuous Time Markov Networks: A Tutorial. In I. Ganchev, M. Curado, & A. Kassler (Eds.), *Wireless Networking for Moving Objects* (Vol. 8611, pp. 115-133). Springer. doi:10.1007/978-3-319-10834-6_7. **Citations: 7**

Refereed Journals – in Print – Original Articles

Bellalta, B., **Checco, A.**, Zocca, A., & Barceló, J. (2016). On the Interactions Between Multiple Overlapping WLANs Using Channel Bonding. *IEEE Transactions on Vehicular Technology*, 65(2), 796-812. doi:10.1109/TVT.2015.2400932. **Citations: 22. Impact Factor: 2.243. SJR: 1.2**

Faridi, A., Bellalta, B., & **Checco, A.** (2016). Analysis of Dynamic Channel Bonding in Dense Networks of WLANs. *IEEE Transactions on Mobile Computing*. doi:10.1109/TMC.2016.2615305. **Citations: 10. Impact Factor: 2.456, SJR: 1.83**

Checco, A., & Leith, D. J. (2015). Fair Virtualization of 802.11 Networks. *IEEE/ACM Transactions on Networking*, 23(1), 148-160. doi:10.1109/TNET.2013.2293501. **Citations: 9. Impact Factor: 2.186, SJR: 1.79**

Checco, A., & Leith, D. J. (2013). Learning-based constraint satisfaction with sensing restrictions. *IEEE Journal of Selected Topics in Signal Processing*, 7(5), 811-820. doi:10.1109/JSTSP.2013.2251604. **Citations: 9. Impact Factor: 3.629. SJR: 1.76**

Checco, A., & Leith, D. J. (2011). Proportional Fairness in 802.11 Wireless LANs. *IEEE Communications Letters*, 15(8), 807-809. doi:10.1109/LCOMM.2011.060811.110502. **Citations: 27. Impact Factor: 0.982. SJR: 0.93**

Checco, A., Bianchi, G., & Leith, D. J. (2017). BLC: Private Matrix Factorization Recommenders via Automatic Group Learning. *ACM Transactions on Privacy and Security (TOPS)*, 20(2). doi:10.1145/3041760. **Citations: 2. Impact Factor: 0.759, SJR: 1.77**

Checco, A., & Leith, D. J. (2017). Fast, Responsive Decentralized Graph Coloring. *IEEE/ACM Transactions on Networking*, 25(6), 3628-3640. **Citations: 2. Impact Factor: 2.186. SJR: 1.06**

Checco, A., Lancia, C., & Leith, D. J. (2017) Updating Neighbour Cell List via Crowdsourced User Reports: a Framework for Measuring Time Performance. *Wireless Communications and Mobile Computing*. **Impact Factor: 1.899. SJR: 0.35**

Refereed Conference Papers – in Print/Press

Checco, A., Roitero, A., Maddalena, E., Mizzaro, S., & Demartini, G. (2017). Let's agree to disagree: Fixing agreement measures for crowdsourcing. In Proceedings of the Fifth AAAI Conference on Human Computation and Crowdsourcing (HCOMP-17) (pp. 11-20). AAAI Press.

Citations: 1

Gadiraju, U., **Checco, A.**, Gupta, N., & Demartini, G. (2017). Modus operandi of crowd workers: The invisible role of microtask work environments. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 1(3), 49. **Citations: 1**

Partov, B., Leith, D. J., & **Checco, A.** (2017). Recommending Access Points to Individual Mobile Users via Automatic Group Learning. In *IEEE ICC 2017 SAC Symposium*.

Bellalta, B., Faridi, A., Barcelo, J., **Checco, A.**, & Chatzimisios, P. (2014). Channel bonding in short-range WLANs. In *20th European Wireless Conference, EW 2014* (pp. 914-920).

Citations: 13

Checco, A., Razavi, R., Leith, D. J., & Claussen, H. (2012, September). Self-configuration of scrambling codes for WCDMA small cell networks. In Personal Indoor and Mobile Radio Communications (PIMRC), 2012 IEEE 23rd International Symposium on (pp. 149-154). IEEE. doi:10.1109/PIMRC.2012.6362585. **Citations: 11**

Checco, A., Demartini, G. (2017) Para Bellum - Breaking Gold Questions Quality Assurance Systems in Paid Micro-task Crowdsourcing. *HHMC 2017: Workshop on Hybrid Human-Machine Computing*

Under Review Journal Papers

Difallah, D.E., **Checco, A.**, Demartini, G., & Cudre-Mauroux, P. Deadline-Aware Fair Scheduling for Multi-Tenant Crowd-Powered Systems.

Sarasua, C., **Checco, A.**, Demartini, G., Difallah, D.E., Feldman, M., Pintscher, L. The Evolution of Wikidata Editors: Understanding the Relationship between Editing Behavior and Editor Lifetime in a Crowdsourced Knowledge Base.

Checco, A., Bracciale, L., Bianchi, G., & Leith, D.J. OpenNym: Enabling Privacy Preserving Recommending via Pseudonymous Group Authentication.

Patents

Leith, D., **Checco, A.**, Bianchi, G. Privacy Enhanced Recommender System, 2015, US Patent App. 15/268,021

Reviewer in Selected Journals

2017 IEEE Communications Letters

2017 SIGIR

2017 ICWSM

2017 WWW

2015 IEEE Journal on Selected Areas in Communications

2015 Journal of Sensors

2015 INFOCOM 2016

2015 IEEE Transactions on Vehicular Technology

2015 IEEE PIMRC

2015 International Workshop on Cyber Crime

2013 IEEE Transactions on Communications

2013 ACM MobiHoc 2013

2012 EURASIP Journal on Wireless Communications and Networking

Conference Organisation

Programme Committee member of the Workshop on Bias in Information, Algorithms, and Systems at the iConference 2018 <http://ir.shef.ac.uk/bias/cfp/>

Programme Committee member of the International Workshop on Cyber Crime (IWCC 2018), (IWCC 2017) and (IWCC 2015)

Programme Committee member of the AAAI Human Computation and Crowdsourcing Conference 2018 (HCOMP-18)

Conference Participation (non-refereed papers, posters etc.)

2017, Big Data Value Forum, Versailles, France

2017, Fashion-ML-KDD, Halifax, Nova Scotia, Canada

2016, GESIS Computational Social Science Winter Symposium, Koln, Germany

2016, Crowdsourcing Research - Transcending Disciplinary Boundaries”, Dagstuhl, Germany

2016, HCOMP, The University of Texas, Austin, USA

2015, Data Transparency Lab, MIT Media Lab, Cambridge, Massachusetts, USA

2015, 8th Winter Conference of the Italian Operational Research Society, Champoluc, Val D’Ayas, Aosta, Italy

2013, 10th Italian Networking Workshop, Bormio, Italy

2012, International EECI Graduate School on Control, CNRS, Laboratoire des Signaux et Systemes & European Embedded Control Institute (EECI), SUPELEC, France

2009, Winter Conference of the Italian Operational Research Society, Cortina D'Ampezzo, Veneto, Italy

Memberships

Member of the Experts Europol Initiative “Criminal Use of Information Hiding”

Member of the Italian Association of Operational Research

Member of the Wireless Networking group in Pompeu Fabra University, Barcelona,
<http://wnrg.upf.edu/people>

Member of the European Big Data Value Association

Current Collaborations

University of Zurich, Switzerland

Wikidata editors behaviour and social computing

Cristina Sarasua

L3S Research Center, Hannover, Germany

Investigate psychometric techniques in Crowdsourcing

Ujwal Gadiraju

Università di Udine, Italy

Agreement measures in Information Retrieval

Prof. Stefano Mizzaro

Southampton University, UK

Real time crowdsourcing

Prof. Elena Simperl

Trinity College Dublin, Ireland

Recommender Systems and Data Privacy

Prof. Doug Leith

University of Fribourg, Switzerland

Ontologies Augmentation via Crowdsourcing

Dr. Djellel E. Difallah

Leiden University Medical Centre, Netherlands

Transparency in Clinical Trials Design

Dr. Carlo Lancia

Warsaw University of Technology, Poland

Cyber Security and Information Hiding

Dr. Wojciech Mazurczyk

References

Prof. Doug Leith

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School of Computer Science and Statistics
Trinity College
Dublin 2, Ireland
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Prof. Giuseppe Bianchi

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Electronic Engineering Department
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Dr. Gianluca Demartini

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