Leto Peel

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Research Interests

Statistical methodology for network-structured and high-dimensional data: network statistics, graphical models, community detection, statistical inference for complex systems. Development of novel inference techniques balancing theoretical foundations with applications from social networks to biological systems. Research includes Bayesian inference, machine learning, anomaly and change-point detection.

Academic Experience

Maastricht University	**Maastricht, NL**
Assistant Professor	*2022–Present*
Dept. of Data Analytics and Digitalisation, School of Business and Economics	

Maastricht University	**Maastricht, NL**
Assistant Professor	*2020–2021*
Institute of Data Science, Faculty of Science and Engineering	
Dept. of Data Analytics and Digitalisation, School of Business and Economics	

Université catholique de Louvain	**Louvain-la-neuve, BE**
FNRS Chargé de recherche	*2017–2020*
Project: *Methods for detecting changes in the structure of complex networks*	

Université catholique de Louvain	**Louvain-la-neuve, BE**
MOVE IN Louvain Research Fellow	*2016–2017*
Project: *Detecting the Large-scale Structures in Collections of Networks*	

Université catholique de Louvain	**Louvain-la-neuve, BE**
Postdoctoral Research Associate	*2015–2016*
Project: *Mining and Optimization of Big Data Models*	
Supervisor: Jean-Charles Delvenne	

Université de Namur	**Namur, BE**
Visiting Researcher	*2015–2019*
Supervisor: Renaud Lambiotte	

University of Colorado at Boulder	**Boulder, CO, USA**
Postdoctoral Research Associate	*2013–2015*
Project: *Statistical Inference for Detecting Structures and Anomalies in Networks*	
Supervisor: Aaron Clauset	

University College London	**London, UK**
Postdoctoral Research Associate	*2012–2013*
Project: *Crime, Policing and Citizenship*	
Supervisor: John Shawe-Taylor	

Research Experience in Industry

BAE Systems Advanced Technology Centre	**Bristol, UK**
Senior Research Scientist	*2011*

BAE Systems Advanced Technology Centre	**Bristol, UK**
Higher Research Scientist	*2008–2010*

BAE Systems Advanced Technology Centre   Bristol, UK
Research Scientist   *2006–2008*

Education

University College London   London, UK
EngD, Virtual Environments, Imaging and Visualisation   *2009–2013*
Thesis: *Predicting the Attributes of Nodes in Networks*
Advisers: Simon Julier, John Shawe-Taylor
Examiners: Mark Herbster, Steve Gregory
Award date: 28 November 2013

University of Bristol   Bristol, UK
MEng, Knowledge Engineering   *2001–2006*
Thesis: *Rule Based Uncertainty in the Semantic Web*
Adviser: Trevor Martin

Funding

2025: NetSci 2025 International Conference   47,900 EUR
Lead organiser, (with: A. Iamnitchi, C. Steghuis, C. Bick, I. Kryven, J. Garcia-Bernardo, A. Bovet)
Multiple sources: NWO, Maastricht Convention Bureau, APS, NETWORKS, 4TU AMI, ODISSEI, Applied Network Science, Cambridge University Press

2024: Reconstructing brain-muscle networks of motor impairments across the lifespan   161,387 EUR
Lead applicant, (with: T. Boonstra, K. Meijer, J. Vermeulen)
Maastricht University Centre for Integrative Neuroscience

2023: Starter grant   300,000 EUR
Individual grant
ministerie van Onderwijs, Cultuur en Wetenschap (OCW)

2022: Creating FUTUre societal RESILIENCE through innovative, science-based co-creation labs   172,219 EUR
Consortium Partner (with: B. Can, S. Okamoto, S. Turkeli)
Horizon Europe Coordinating and Support Actions (Total project: 2,889,408 EUR)

2022: Reconstructing networks from uncertain time-evolving data   800,000 EUR
Individual grant
NWO Talent Scheme: VIDI — Science domain

2022: Small Scale Research grant   4,000 EUR
Individual grant
Graduate School of Business and Economics, Maastricht University

2018: Workshop support fund (WWCS18)   7,500 EUR
Workshop organiser, (Co-organisers: S. Selakovic, Q. Feng, J. Garcia-Bernardo)
Multiple sources: Utrecht Uni., UNamur, Corpnet, CSS

2017: Integrated response for infectious disease surveillance   312,900 EUR
Technical and scientific manager, (PIs: J-C. Delvenne, M. Delmée, X. Morelle)
Innoviris Team Up (Total project: 1,133,717 EUR)

2017–20: Methods for detecting changes in the structure of complex networks   230,700 EUR
Individual fellowship
FNRS Chargé de Recherche

2016–20: DataBeers Brussels   5,718 EUR
Event organiser
Multiple sources: VUB, ISACA, Dataminded, UCL, Dataiku, B&D

2016–17: Detecting large-scale structures in collections of networks   112,000 EUR
Individual fellowship
MOVE-IN Louvain (co-funded by Marie-Curie actions)

2015–17: Travel fellowships   **2,155 EUR**
Individual travel fellowship
FNRS

2011: Maritime wide area surveillance using AIS data   **300,000 GBP**
Project manager and technical lead
BAE Systems TTP

2010: Role detection in networks   **100,000 GBP**
Project manager and technical lead
BAE Systems TTP

Research Visits

2019: Umeå University, Umeå, SE (host: Martin Rosvall)

2019: Universidad Rovira i Virgili, Tarragona, ES (host: Alex Arenas)

2019: ISC-Sapienza, Rome, IT (host: Antonio Scala)

2018: MIT, MA, US (host: Michael Schaub)

2018: Tor Vergata, Rome, IT (host: Antonio Iovanella)

2016: CNRS, Paris, FR (host: Claire Lagesse)

2014: Harvard School of Public Health, MA, US (host: Dan Larremore)

2014: Santa Fe Institute, NM, US (host: Cris Moore)

Awards

- Complex Systems Service Award for the *Winter Workshop on Complex Systems*, 2022
  (with: J. Grujic, L.A.M. Vaquero, M. Stella, A. Antonioni, A. Aloric, F. Battiston, S. Bartolucci, V. Gligorijevic, Q. Feng, J. Garcia Bernardo, S. Selakovic, G. Siedem, J. Klamut, T. Raducha, M. Willinski, B. Tepekule, M. Cinelli, A. Bovet, S. Rajeh, A. Keuchenius, L. Tupikina, C. Singh, I. Malvestio, F. Gursoy, H. El Gouj, C. Lagesse)

- Graduate School of Business and Economics Fellow, 2021–2024

- Publons Peer Review Awards Top 1% in Field, 2018

- Best speaker award at the 5th Mediterranean School on Complex Networks, 2018

- 15th recipient of the prestigious Zachary Karate Club Club prize, 2018

- One of the 20 Best Reviewers at the 12th International AAAI Conference on Web and Social Media (ICWSM), 2018

- Best Oral Presentation Award at the 6th International Conference on Complex Networks and Their Applications, 2017

- 3rd in Best Student Paper Award at the 14th International Conference on Information Fusion (Prize USD 1000), 2011

- Received Honourable Mention in the category of Best Student Paper Award at the 13th International Conference on Information Fusion, 2010

- Winner of the IEEE Prognostics and Health Management Data Challenge, 2008 (IEEE GOLD Category) (Prize USD 2500)

- BAE SYSTEMS Bronze Chairman's Award for Innovation for *Intelligent Fault Diagnosis Technologies*, 2008

- L.N. Fryer Physics Prize, 2001

Google Scholar

http://scholar.google.com/citations?user=GR-yASwAAAAJ&hl=en

Publications

Papers under Review

Supervised students indicated with [†]

"Higher order trade-offs in hypergraph community detection"
J. Li[†], M. Schaub, **L. Peel**
Submission date: January 2026

"Inferring signed social networks from contact patterns"
D. Ferenczi[†], J-G. Young, **L. Peel**
Submission date: January 2026

Refereed Publications

Supervised students indicated with [†]

2025: "Gender differences in collaboration and career progression in physics"
M. She[†], J. Bachmann, F. Karimi, **L. Peel**
Royal Society Open Science, **12**: 241536 arXiv:2408.02482

2024: "Detectability of hierarchical communities in networks"
L. Peel, M. T. Schaub
Physical Review E, **110** (3): 034306 arXiv:2009.07525

2023: "Hierarchical community structure in networks"
M. T. Schaub, J. Li[†], **L. Peel**
Physical Review E, **107** (5): 054305 arXiv:2009.07196

2022: "Statistical inference links data and theory in network science"
L. Peel, T. P. Peixoto, M. De Domenico
Nature Communications, **13** (1): 6794

2020: "Network constraints on the mixing patterns of binary node metadata"
M. Cinelli[†], **L. Peel**, A. Iovanella, J-C. Delvenne
Physical Review E, **102** (6): 062310 arXiv:1908.04588

2020: "Community detection in networks without observing edges"
T. Hoffman, **L. Peel**, R. Lambiotte, N. Jones
Science Advances, **6** (4): eaav1478 arXiv:1808.06079
Preprint featured on the PLOS Complexity Channel, Sept. 2018

2019: "Individual perception dynamics in drunk games"
A. Antonioni, L. A. Martinez-Vaquero, C. Mathis, **L. Peel**, M. Stella
Physical Review E, **99** (5): 052311 arXiv:1807.08635
Featured on the Physical Review E Kaleidoscope, May 2019

2018: "The architecture of an empirical genotype-phenotype map"
J. Aguilar-Rodríguez, **L. Peel**, M. Stella, A. Wagner, J. Payne
Evolution, **72** (6): 1242–1260
Top 10% Most Downloaded Paper 2018–2019

2018: "Multiscale mixing patterns in networks"
L. Peel, J-C. Delvenne, R. Lambiotte
Proc. Natl. Acad. Sci. USA, **115** (16): 4057–4062 arXiv:1708.01236

2017: "The ground truth about metadata and community detection in networks"
L. Peel, D. Larremore, A. Clauset
Science Advances, **3** (5): e1602548 arXiv:1608.05878

2017: "Graph-based semi-supervised learning for relational networks"
L. Peel
SIAM Int. Conf. on Data Mining (SDM), Apr 27–29, 2017 arXiv:1612.05001
Acceptance rate 26%

2016: "Detectability thresholds and optimal algorithms for community structure in dynamic networks"
A. Ghasemianlangroodi[†], P. Zhang, A. Clauset, C. Moore, **L. Peel**
Physical Review X, **6** (3): 031005 arXiv:1506.06179

2015: "Predicting sports scoring dynamics with restoration and anti-persistence"

L. Peel, A. Clauset

IEEE Int. Conf. on Data Mining (ICDM), Nov 14–17, 2015   arXiv:1504.05872

Acceptance rate 18.2% (regular paper 8.4%)

2015: "Detecting change points in the large-scale structure of evolving networks"

L. Peel, A. Clauset

AAAI Conf. on Artificial Intelligence (AAAI), Jul 25–30, 2015   arXiv:1403.0989

Acceptance rate 26.7%

2014: "Active discovery of network roles for predicting the classes of network nodes"

L. Peel

Journal of Complex Networks, **3**(3): 431–449   arXiv:1312.7258

2012: "Maritime anomaly detection using Gaussian process active learning"

K. Kowalska[†], **L. Peel**

Int. Conf. on Information Fusion (FUSION), July 9–12, 2012

2011: "Estimating parameters for selecting community detection algorithms"

L. Peel

Journal of Advances in Information Fusion, **6**(2): 119–130

2011: "Topological feature based classification"

L. Peel

Int. Conf. on Information Fusion (FUSION), Jul 5–8, 2011   arXiv:1110.4285

3rd in Best Student Paper Award

2011: "Capturing time-of-flight data with confidence"

M. Reynolds, J. Doboš, **L. Peel**, T. Weyrich, G.J. Brostow

IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), Jun 20–25, 2011

Acceptance rate 26.4%

2010: "Estimating parameters for selecting community detection algorithms"

L. Peel

Int. Conf. on Information Fusion (FUSION), Jul 26–29, 2010   arXiv:1010.5377

Honourable Mention for Best Student Paper Award

2008: "Data driven prognostics using a Kalman filter ensemble of neural network models"

L. Peel

IEEE Conf. on Prognostics and Health Management (PHM), October 6–9, 2008

IEEE GOLD Winner of PHM Challenge 2008

Other Publications

2023: "A model petting zoo for interacting with network structure"

L. Peel

Peer Community in Network Science

2014: "Dynamical Game Theory"

A. Antonioni, L. A. Martinez-Vaquero, N. Mathis, **L. Peel**, M. Stella

Proc. of the Santa Fe Institute Complex Systems Summer School (CSSS)

2014: "Change-point detection in temporal networks using hierarchical random graphs"

L. Peel, A. Clauset

ACM SIGKDD Works. on Outlier Detection & Description under Data Diversity (ODD² 2014), Aug 24, 2014

2012: "Supervised blockmodelling"

L. Peel

ECML/PKDD Works. on Collective Learning and Inference in Structured Data (CoLISD), Sep 28, 2012 (arXiv:1209.5561)

2011: "Fast maritime anomaly detection using kd-tree Gaussian processes"

J. Will, **L. Peel**, C. Claxton

IMA Mathematics in Defense Conference, Oct 20, 2011

Patents

2011: Detecting a least one community in a network

L. Peel

International Application No.: PCT/GB2011/050464, Publication Date: 22.09.2011, International Filing Date: 09.03.2011

Talks

Invited Talks

2025: Higher Order Opportunities and Challenges workshop, Aachen, DE (Aug 11)

2025: Winter Workshop on Complex Systems, Lombardy, IT (Jan 28)

2024: Inaugural symposium of the DM3L department, Zurich, CH (Sep 12)

2024: Young Researchers of the Complex Systems Society Warm-Up, London, UK (Aug 30)

2024: Social sciences and humanities seminar, eScience center, Amsterdam, NL (Apr 11)

2023: Clustering, graphs and hierarchies mini-symposium, Aachen, DE (Aug 11)

2023: Statistical Inference for Network Models, NetSci Satellite, Vienna, AT (Jul 11)

2023: Complexity Science Hub, Vienna, AT (Jul 7)

2023: Dutch Network Science Society Winter Symposium, Twente, NL (Jan 13)

2022: Leiden Complex Networks Network (LCN2), Leiden, NL (May 20)

2021: Department of Network and Data Science, CEU, Vienna, AT (Jun 10)

2020: Networks Seminar, Mathematical Institute, University of Oxford, UK (Oct 20)

2020: MIX-NEXT, NetSci Satellite, Rome, IT (Sep 17)

2020: DTU Compute, Technical University of Denmark, DK (Mar 9)

2020: École Normale Supérieure de Lyon, FR (Feb 26)

2020: Dept. of Data Analytics and Digitalisation, Maastricht University, NL (Feb 10)

2020: Institute of Interactive Systems and Data Science, TU Graz, AT (Feb 4)

2019: Institute of Data Science, Maastricht University, NL (Nov 29)

2019: Integrated Science Lab, Umea University, SE (Oct 15)

2019: Network Architecture and Systems Group, TU Delft, NL (Oct 4)

2019: 6th Mediterranean School of Complex Networks, Salina, IT (Sep 6)

2019: 5th Int. Conf. on Comp. Social Science (IC2S2), Amsterdam, NL (Jul 20)

2019: Int. Works. on Comp. Economics and Econometrics, Rome, IT (Jul 3–5)

2019: Department of Network and Data Science, CEU, Budapest, HU (Mar 18)

2019: Department of Economics, Ghent University, Ghent, BE (Feb 28)

2019: Research Group on the Analysis of Economic Policies, Rome, IT (Jan 25)

2018: University College London Financial Computing Seminar, UK (Dec 14)

2018: Dept. of Mathematical Sciences, Politecnico di Torino, IT (Nov 14)

2018: Telecommunications and microwaves seminar, KU Leuven, BE (Oct 5)

2018: Dynamics on and of Complex Networks XI, Thessaloniki, GR (Sep 27)

2018: 5th Mediterranean School of Complex Networks, Salina, IT (Sep 7)

2018: Int. Works. on Comp. Economics and Econometrics, Rome, IT (Jun 26)

2018: Fondazione Bruno Kessler, Trento, IT (Apr 11)

2018: Institute for Data Systems and Society, MIT, Cambridge, MA, US (Mar 12)

2018: Center for Data Science, New York Univ., New York, NY, US (Feb 28)

2018: Donnelly Centre, Univ. of Toronto, CA (Feb 26)

2018: University of Rome Tor Vergata, Rome, IT (Feb 21)

2018: Institute of Cognitive Sciences and Technologies, Rome, IT (Feb 20)

2016: 9th Int. Conf. of the ERCIM WG CMStatistics, Seville, ES (Dec 10)

2016: Networks Seminar, Dept. of Bus. Admin., Univ. of Zurich, CH (Oct 25)

2016: Dept. of Computer Science, Univ. of Exeter, UK (Jul 26)

2016: Complex Systems Inst. of Paris (ISC-PIF), CNRS, FR (Jul 21)

2016: Dept. of Computer Science, Lancaster Univ., UK (Feb 1)

2015: Inference on Networks workshop, Santa Fe Institute, NM, US (Dec 14)

2015: AI Lab, Vrije Universiteit Brussel, BE (Dec 3)

2015: Meyers Lab, Dept. of Int Bio, Univ. of Texas, Austin, TX, US (Jan 26)

2014: Dynamics Of and On Networks works., Santa Fe Institute, NM, US (Dec 18)

2014: Network Science Lab, Harvard School of Public Health, MA, US (Aug 29)

2014: Dynamical Systems Seminar, CU Boulder, CO, US (Mar 20)

2014: Invited Talk, Santa Fe Institute, NM, US (Jan 10)

2012: Euro. Partners Against Corruption 12th Conf., Barcelona, ES (Nov 22)

2012: UCL CPC Project Launch Event, Univ. College London, UK (May 18)

2008: IEEE Conf. on Prognostics and Health Mgmt., Denver, CO, US (Oct 6–9)

Contributed Talks

2024: Statistical Inference for Network Models, NetSci Satellite, Quebec City, CA (Jun 17)

2022: Complex Networks and their Applications, Palermo, IT (Nov 9)

2021: Networks (Joint Sunbelt and NetSci), Virtual (Jul 6)

2020: Int. Conf. on Network Science (NetSci), Rome, IT (Sep 23)

2019: Complex Networks and their Applications, Lisbon, PT (Dec 12)

2019: Int. Conf. on Network Science (NetSci), Burlington, VT, US (May 29)

2019: 10th Conf. on Complex Networks (Complenet), Tarragona, ES (Mar 19)

2019: 8th Belgian Network Research Meeting, Hasselt, BE (Feb 22)

2018: Complex Networks and their Applications, Cambridge, UK (Dec 12)

2018: The 2018 Conf. on Complex Systems (CCS), Thessaloniki, GR (Sep 24–25)

2018: DATAM 2018, CCS Satellite, Thessaloniki, GR (Sep 26)

2018: People, places things, NetSci Satellite, Paris, FR (Jun 12)

2018: Statistical Inference for Network Models, NetSci Satellite, Paris, FR (Jun 11)

2017: 7th Belgian Network Research Meeting, Ghent, BE (Dec 6)

2017: Int. Conf. on Complex Networks and their Applications, Lyon, FR (Dec 1)

2017: The 2017 Conf. on Complex Systems (CCS), Cancun, MX (Sep 18–19)

2017: Int. Conf. on Network Science (NetSci), Indianapolis, IN, US (Jun 21)

2017: Statistical Inference for Network Models works., NetSci2017, IN, US (Jun 20)

2017: Machine Learning in Network Science works., NetSci2017, IN, US (Jun 19)

2017: Machine Learning Conf. of the Benelux (BeneLearn), Eindhoven, NL (Jun 9)

2017: SIAM Int. Conf. on Data Mining (SDM), Houston, TX, US (Apr 28)

2017: 8th Workshop on Complex Networks (CompleNet), Dubrovnik, HR (Mar 21, 23)

2016: The 2016 Conf. on Complex Systems (CCS), Amsterdam, NL (Sep 22)

2016: Int. Conf. on Network Science (NetSci), Seoul, KR (Jun 1)

2015: IEEE Int. Conf. on Data Mining (ICDM), Atlantic City, NJ, US (Nov 17)

2015: 5th Belgian Network Research Meeting, Namur, BE (Sep 30)

2014: Outlier Detection & Description under Data Diversity, NY, US (Aug 24)

2014: Complex Systems Summer School, Santa Fe Institute, NM, US (Jul 3)

2014: Int. Conf. on Network Science (NetSci), Berkeley, CA, USA (Jun 5)

2012: Collective Learning and Inference in Structured Data, Bristol, UK (Sep 28)

2012: Int. Conf. on Information Fusion (FUSION), SG (Jul 9)

2011: Int. Conf. on Information Fusion (FUSION), Chicago, IL, US (Jul 6)

2010: Int. Conf. on Information Fusion (FUSION), Edinburgh, UK (Jul 26)

Conference Posters

2020: M. Faccin, **L. Peel**, et al., The variability of network structures inferred from time series data. *Int. Conf. on Network Science (NetSci)*, September 2020

2019: M. Faccin, **L. Peel**, et al., The variability of network structures inferred from time series data. *Conference on Complex Networks*, December 2019

2017: **L. Peel**, Graph-based semi-supervised learning for relational networks. *SIAM International Conference on Data Mining*, April 2017

2016: **L. Peel**, D. Larremore, A. Clauset, The ground truth about metadata and community detection in networks. *Conference on Complex Networks*, December 2016; *7th Workshop on Complex Networks*, March 2016

2015: **L. Peel**, A. Clauset, Detecting large-scale changes in the structure of evolving networks. *29th AAAI Conference on Artificial Intelligence*, January 2015

2012: T. Cheng et al., Crime, policing and citizenship. *RCUK Global Uncertainties Ideas and Beliefs Showcase Event*, October 2012

2012: **L. Peel**, Inference of abnormal behaviour in shipping vessels. *CPC Launch Event*, May 2012

2011: **L. Peel**, Topological feature based classification. *Machine Learning Summer School*, September 2011

Press

2024: NetSci 2025 – *Congres Wereld*, *Publique*, *De Nieuwe Star*, *Boardroom* (October 2024)

2024: Science of science – *physicsworld* (Michael Allen, September 5, 2024)

2017: Community Detection – *phys.org* (Jenna Marshall, May 4, 2017); also in *Science Newsline* and *Eurekalert*

2017: Sports Scoring – *Clyde Street* (Keith Lyons, February/August 2017)

2012: Crime, Policing and Citizenship – *The Guardian* (Ami Sedghi, October 30, 2012)

Academic Service

Editorial

2020–Present: Recommender/Associate Editor, *Peer Community In Network Science*

2019–2023: Academic Editor, *PLOS ONE*

2019: Guest Editor, *PLOS ONE Special Issue of the 8th Intl. Conf. on Complex Networks*

2018: Guest Editor, *Applied Network Science Special Issue of the 7th Intl. Conf. on Complex Networks*

Conference Organisation

2025: General Chair, *International School and Conference on Network Science (NetSci)*, Maastricht, The Netherlands

Workshop Organisation

2021: Researching Adult Content Creators on Digital Platforms (with C. Goanta), Maastricht

2019: Network Reconstruction Science-athon (with A. Bovet et al.), Beaumont, Belgium

2018: Winter Workshop on Complex Systems 2018 (with S. Selakovic, Q. Feng, J. Garcia-Bernardo), Utrecht

2016: Belgian Network Research Meeting (BeNet) 2016 (with S. Béreau, J-C. Delvenne et al.), Louvain-la-neuve

2016: CCS workshop on Coarse-graining Complex Systems (with M. Faccin, R. Lambiotte, M. Schaub), Amsterdam

2015: NetSci workshop on Statistical Inference for Network Models (with A. Clauset, A. Z. Jacobs, D. Larremore), Zaragoza

2014: NIPS workshop on Networks: From Graphs to Rich Data (with E. Airoldi, D. Choi, A. Clauset, J. Ugander), Montreal

2014: NetSci workshop on Statistical Inference for Network Models (with A. Clauset, A. Z. Jacobs, D. Larremore), Berkeley

Technical Program Committee Member

2022–2025: (Senior PC) AAAI Conference on Web and Social Media (ICWSM)

2024: Conference on Complex Systems (CCS), IC2S2

2022: ACM/IEEE Advances in Social Network Analysis and Mining (ASONAM)

2020–2024: International School and Conference on Network Science (NetSci-X)

2017–2026: International School and Conference on Network Science (NetSci)

2016–2022: AAAI Conference on Artificial Intelligence (AAAI)

2021: ACM SIGKDD Conference on Knowledge Discovery and Data Mining

2021: International Workshop on Social Sensing (SocialSens)

2017–2021: The Web Conference (formerly WWW)

2016–2021: ACM International Conference on Web Search and Data Mining (WSDM)

2016–2020: AAAI Conference on Web and Social Media (ICWSM)

2017–2024: International Conference on Complex Networks and their Applications

2018–2021: International Conference on Complex Networks (CompleNet)

2014, 2020: ACM Web Science Conference (WebSci)

2019: International Workshop on Machine Learning with Graphs (MLG)

2017–2018: International Conference on Social Informatics (SocInfo)

2018: International Workshop on Dynamics on and of Networks (DYNO), SIAM Workshop on Network Science (NS)

2017: Workshop on Data Science for Human Performance in Social Networks

2015: SDM Workshop on Mining Networks and Graphs

2010–2012: International Conference on Information Fusion (FUSION)

Journal Reviewer

Algorithms, *Applied Network Science*, *BMC Bioinformatics*, *Canadian Journal of Experimental Psychology*, *Chaos*, *Communications Physics*, *Data Mining and Knowledge Discovery*, *Entropy*, *Europhysics Letters*, *IEEE Communications Magazine*, *IEEE Intelligent Systems*, *Journal of Machine Learning Research*, *Journal of Psychopathology and Clinical Science*, *Journal of Statistical Mechanics*, *Nature Communications*, *Neural Computing and Applications*, *New Journal of Physics*, *PeerJ Computer Science*, *Physical Review E*, *Physical Review Letters*, *Physical Review Research*, *Physical Review X*, *PLOS Computational Biology*, *PLOS One*, *PNAS*, *Proceedings of the IEEE*, *Proceedings of the Royal Society A*, *Proceedings of the Royal Society B*, *Science Advances*, *Scientific Reports*, *SIAM Journal on Applied Mathematics*, *SIAM Journal on Mathematics of Data Science*, *Social Network Analysis and Mining*, *Soft Computing*, *Sustainability*, *Transactions on Knowledge Discovery from Data*, *Transactions on Network Science and Engineering*, *Transactions on Pattern Analysis and Machine Intelligence*, *Transactions on Signal and Information Processing over Networks*, *Transactions on Signal Processing*

PhD Thesis Assessment

2024: X. Liu (Adv: Eduardo Altmann), Mathematics and Statistics, University of Sydney

2023: M. Contisciani (Adv: Caterina De Bacco), Mathematics and Natural Sciences, U. of Tübingen

2022: S. Morel-Balbi (Adv: Tiago Peixoto), Mathematical Sciences, University of Bath

2021: R. Runghen (Adv: Daniel B. Stouffer), Biological Sciences, University of Canterbury

Master Thesis Assessment

2024: 2 students, Business Intelligence and Smart Services, UM:
I. Hernandez Mariscal (Adv: D. Ferenczi), M. Pham (Adv: D. Ferenczi)

2023: 4 students, International Business, UM:
G. Peper (Adv: R. Cerina), M. Mandilaras (Adv: R. Cerina), H. Molinghen (Adv: R. Suurmond), M. Vahedimoghaddam (Adv: R. Cerina)

2022: 4 students, International Business, UM:

M. Sears Gil (Adv: R. Cerina), N. Windmüller (Adv: R. Triepels), C. Leutbecher (Adv: B. Can), H. Li (Adv: R. Cerina)

2022: 3 students, Business Intelligence and Smart Services, UM:
T. Gadet (Adv: R. Cerina), A. Schmeitz (Adv: R. Muller), L. Xuereb (Adv: R. Muller)

2021: 3 students, Business Intelligence and Smart Services, UM:
A. Mazzoni (Adv: R. Muller), Z. McGovern (Adv: P. Theunissen), R. Notarangelo (Adv: H. Schmitt)

2020: 2 students, Business Intelligence and Smart Services, UM:
C. Kang (Adv: R. Kessels), A. Przybylski (Adv: V. Urovi)

Internal Committees

2025: Master Thesis Assurance of Learning panel, MSc in Econometrics and Operations Research

2024: Assurance of Learning internal audit, BSc in Business Analytics

Other Service Roles

2023, 2025: NWO committee member, VIDI Science domain

2023: Assessment committee member, Amrapali Zaveri Awards for Data Science

2021: NWO Jury, Open Technology Programme, Applied and Engineering Sciences

2020–2025: Tutorial Chair, International Conference on Complex Networks and Their Applications

2020: Mentor, Society of Young Network Scientists Workshop

2018–2022: Steering committee member, Winter Workshop on Complex Systems

2018–2019: Publicity Chair, International Conference on Complex Networks and Their Applications

2017–2018: Advisory panel member, W. England Academic Health Science Network Digital Engagement Platform

2016–2019: Elected council member, Complex Systems Society

Student Advising

Doctoral Students

2025–Present: J. Bittar, School of Business and Economics, Maastricht University

2025–Present: R. Ottow (with J. Palmer), Pompeu Fabra University

2024–Present: Y. Asgari (with A. Bovet), University of Zurich

2024–Present: C. Tamang, School of Business and Economics, Maastricht University

2024–Present: Y. Zhou, School of Business and Economics, Maastricht University

2024–Present: D. Ferenczi, School of Business and Economics, Maastricht University

2021–Present: M. She, School of Business and Economics, Maastricht University

2021–Present: J. Li, School of Business and Economics, Maastricht University

2017–2019: M. Cinelli (with A. Iovanella), University of Rome Tor Vergata

2016–2019: L. Gutierrez Gomez (with J-C. Delvenne), ICT EAM, UCLouvain

2015–2016: A. Ghasemian (with A. Clauset), Computer Science, CU Boulder

Master Students

2026: 1 student, Information Management and Business Intelligence, Maastricht University
D. Henze

2023: 1 student, Information Management and Business Intelligence, Maastricht University
S. de Cuba

2022: 1 student, Information Management and Business Intelligence, Maastricht University
T. Luo

2022: 1 student, Digital Business and Economy, Maastricht University
I. Aydeniz

2022: 9 students, Business Intelligence for Smart Services, Maastricht University
N. Andrade, V. Chinna Reddy, T. Abo Saleh, J. Reichel, N. Lardenoije, G. Feijoo Bleda, S. Tapia Stocker, L. Capitani, P. Gitu

2021: 8 students, Business Intelligence for Smart Services, Maastricht University
H. Othman, A. Corral, S. Yacoubi, J. Hu, L. Hartleb, D. Bernhardt, D. Cowen, G. Hoefsteders

2011: 1 student, BAE Systems ATC (intern) / Engineering Mathematics, University of Bristol
K. Kowalska

Undergraduate Students

2023: F. Hobbelhagen, Business Analytics, Maastricht University

2016: H. Devillez, M. Huet (with M. Faccin), Applied Maths / Elec. Eng., UCLouvain

2011: R. Cazaciuc, BAE Systems ATC (intern) / Comp. Sci., U. of York

2009–2010: C. Howarth, BAE Systems ATC (intern) / Maths, U. of Bath

2008: R. Presley, BAE Systems ATC (intern) / Maths, U. of Bath

Teaching

University Courses at Maastricht University

2023–2026: Networks and Simulation EBC2184 (Undergraduate) – Lecturer/Coordinator

2025: Network Science KEN4275 (Graduate) – Guest Lecturer

2021–2024: Introduction to Global Studies (Quantitative Methods) GLO1221 (Undergraduate) – Lecturer/Coordinator

2021–2023: Research Methods for Economy & Environment II GLO1521 (Undergraduate) – Lecturer/Coordinator

2020–2021: Machine learning for smart services EBC4255 (Graduate) – Lecturer/Coordinator

2021: Research Methods for Economy & Environment I GLO1421 (Undergraduate) – Lecturer/Coordinator

2021: Building and Mining Knowledge Graphs KEN4256 (Graduate) – Guest Lecturer

2020: Introduction to Global Studies (Methods track) GLO1101 (Undergraduate) – Lecturer

University Courses at Other Institutions

2017–2019: Algorithms in data science LINMA 2472 (Graduate) – Lecturer/Coordinator, UCLouvain

2015: Integer Programming LINMA 2450 (Graduate) – Teaching Assistant, UCLouvain

2014: Algorithms CSCI 3014 (Undergraduate) – Guest Lecturer, University of Colorado

2013–2014: Networks CSCI 5352 (Graduate) – Guest Lecturer, University of Colorado

Tutorials and Short Courses

2022–2025: Graph models and hypothesis testing, Community detection, Link prediction – Summer School Utrecht on Network Science, Utrecht University, Netherlands

2020: Introduction to Network Science – IDS Training Day, Maastricht University, Netherlands

2018–2019: Network inference in practice – Mediterranean School of Complex Networks, Salina, Italy

2017: Philosophy and practice of community detection – Winter Workshop on Complex Systems, Petnica Science Centre, Serbia; AsCII Tutorial Seminar, UCLouvain, Belgium

Outreach

2016–2020: **DataBeers Brussels** – Founder and Organiser
with J. Grujic, J. Loeckx, E. Vanwalleghem, M. Hargitt and R. R. Kotaprolu
Recurring public outreach and networking event (http://databeers.brussels/)
- July 2020 – *Speakers:* José A. Cuesta, Ruben Cuevas, Pieter Libin, Neema Mduma
- February 2020 – *Speakers:* Segolene Martin, Megi Hoxha, Supinya Piampongsant, Valentin Calomme
- November 2019 – *Speakers:* Radovan Parrak, Kris Vanherle, Sofia Papadimitriou
- September 2019 – *Speakers:* Thomas Carette, Thomas Van Vaerenbergh, Thomas De Moor, Thomas Dalberto
- May 2019 – *Speakers:* Geraint Wiggins, Aleksandra Vercauteren, Fariba Karimi, David Bol
- March 2019 – *Speakers:* Kevin Françoisse, Marina Radulaški, Bart Smeets, Ann Dooms
- January 2019 – *Speakers:* Piia Karjalainen, Jelle Grammens, Danielle Marinazzo, Sarah Baatout
- October 2018 – *Speakers:* Hannelore Aerts, Alexandre Bovet, Wouter Denayer, Arne Coutteau

- May 2018 – *Speakers:* Robert Calderbank, Ingrid Daubechies, Pierre-Henri Golard, Katrien Beuls, Gert de Geyter
- March 2018 – *Speakers:* Luc Steels, Aimee Coelho, Julien Hendrickx, Maarten Lambrechts
- January 2018 – *Speakers:* Gautier Krings, Ellie D'Hondt, Michael Gillon, Genevieve Quek
- November 2017 – *Speakers:* Lisa Truyers, Leen Dieltjens, Karim Douieb, Baldwin Berges, Vsevolod Salnikov, Tias Guns
- September 2017 – *Speakers:* Jerome Kunegis, Kris Peeters, Vassilis Syropoulos, Rosanna Kurrer
- May 2017 – *Speakers:* Winnie Poncelet, Shamma Raghib, Daniel Perez, Bavo Van den Heuvel
- November 2016 – *Speakers:* Christina Makarona, Pierre Deville, Marc Vael, Pieter Colpaert

Professional Development

Schools and Courses Attended

2024: Leadership and undesirable behaviour, Leadership academy, Maastricht, NL

2022: Effective Supervision of PhD Students, ElroyCOM Training, Maastricht, NL

2015: Mediterranean School of Complex Networks, Sicily, IT

2014: Summer Teaching as Research Institute for Post-docs in Engineering (STRIPE), University of Colorado, Boulder, CO, USA

2014: Complex Systems Summer School, Santa Fe Institute, Santa Fe, NM, USA

2011: Machine Learning Summer School, MLSS Series, Bordeaux, France

2008: Pattern Analysis and Time Series Modelling, Aston University, Aston, UK

2006: Simultaneous Localisation And Mapping Summer School, SLAM Summer School Series, Oxford, UK

2006: PRINCE 2 Foundation and Practitioner Project Management, OCG, UK

Other Employment

2006: Database Developer, **Orange**, Bristol, UK

2005: Process Analyst / Database Developer, **HBOS Financial Services**, Bristol, UK

2005: Credit Control Assistant, **Ultimate Finance**, Bristol, UK

2005: Finance Assistant, **Royal Bank of Scotland**, Bristol, UK

2004–2005: Payments Administrator, **Clerical Medical**, Bristol, UK

2002–2004: Bar Tender and Relief Manager, **Clyde Arms**, Bristol, UK

2002: Sales and Marketing Representative, **Barclaycard**, Bristol, UK

2001–2002: Model, **Nemesis Modelling Agency**, Birmingham, UK

2001–2002: Sandwich Artist, **Subway Sandwiches**, Bristol, UK

1999–2001: Customer Services General Assistant, **Homebase Ltd**, Birmingham, UK

1999–2000: Administrative Assistant, **GKN Plc Group Headquarters**, Redditch, UK

1995–1997: Word Processor and IT Support, **Anne McCarthy**, Birmingham, UK