

## Leto Peel

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### CONTACT INFORMATION

Institute of Data Science  
Paul-Henri Spaaklaan 1  
6229 EN, Maastricht  
The Netherlands

*E-mail:* [l.peel@maastrichtuniversity.nl](mailto:l.peel@maastrichtuniversity.nl)  
*WWW:* [piratepeel.github.io](http://piratepeel.github.io)  
*Twitter:* [@PiratePeel](https://twitter.com/PiratePeel)

### RESEARCH INTERESTS

**Machine Learning and Data Mining in Network Data Structures** community detection, social network analysis, Bayesian statistics, graphical models, blockmodels, active learning, anomaly and change-point detection.

### EXPERIENCE

**Maastricht University**, Maastricht, The Netherlands

*Assistant Professor, Institute of Data Science*

**Aug 2020 to present**

*Assistant Professor, Dept. of Data Analytics and Digitalisation*

**Aug 2020 to present**

**Université catholique de Louvain**, Louvain-la-neuve, Belgium

*FNRS Chargé de recherche*

**Oct 2017 to Aug 2020**

- Project: *Methods for detecting changes in the structure of complex networks*

*MOVE IN Louvain Research Fellow*

**Aug 2016 to Sep 2017**

- Project: *Detecting the Large-scale Structures in Collections of Networks*

*Postdoctoral Research Associate*

**Aug 2015 to Aug 2016**

- Project: *Mining and Optimization of Big Data Models*
- Supervisor: Jean-Charles Delvenne

**Université de Namur**, Namur, Belgium

*Visiting Researcher*

**Aug 2015 to Aug 2019**

- Supervisor: Renaud Lambiotte

**University of Colorado at Boulder**, Boulder CO, USA

*Postdoctoral Research Associate*

**Aug 2013 to Jul 2015**

- Project: *Statistical Inference for Detecting Structures and Anomalies in Networks*
- Supervisor: [Aaron Clauset](#)

**University College London**, London, UK

*Postdoctoral Research Associate*

**Apr 2012 to Apr 2013**

- Project: *Crime, Policing and Citizenship*
- Supervisor: John Shawe-Taylor

**BAE Systems Advanced Technology Centre**, Bristol, UK

*Senior Research Scientist*

**Jan 2011 to Dec 2011**

*Higher Research Scientist*

**Jun 2008 to Dec 2010**

*Research Scientist*

**Jul 2006 to May 2008**

### EDUCATION

**University College London**, London, UK

EngD, Virtual Environments, Imaging and Visualisation,

**Mar 2009 – Aug 2013**

- Thesis Topic: *Predicting the Attributes of Nodes in Networks*
- Advisers: [Simon Julier](#), [John Shawe-Taylor](#)
- Examiners: [Mark Herbster](#), [Steve Gregory](#)

- Thesis Topic: *Rule Based Uncertainty in the Semantic Web*
- Adviser: Trevor Martin

RESEARCH VISITS	• Umea University, Umea, SE (host: Martin Rosvall)	Oct 2019
	• Universidad Rovira i Virgili, Tarragona, ES (host: Alex Arenas)	Mar 2019
	• ISC-Sapienza, Rome, IT (host: Antonio Scala)	Jan 2019
	• MIT, MA, US (host: Michael Schaub)	Mar 2018
	• Tor Vergata, Rome, IT (host: Antonio Iovanella)	Feb 2018
	• CNRS, Paris, FR (host: Claire Lagesse)	Jul 2016
	• Harvard School of Public Health, MA, US (host: Dan Larremore)	Aug 2014
	• Santa Fe Institute, NM, US (host: Cris Moore)	Jan 2014

AWARDS	• Publons Peer Review Awards Top 1% in Field, 2018	
	• Best speaker award at the 5 <sup>th</sup> Mediterranean School on Complex Networks, 2018	
	• 15 <sup>th</sup> recipient of the prestigious Zachary Karate Club Club prize, 2018	
	• One of the 20 Best Reviewers at the 12 <sup>th</sup> International AAAI Conference on Web and Social Media (ICWSM), 2018	
	• Best Oral Presentation Award at the 6 <sup>th</sup> International Conference on Complex Networks and Their Applications, 2017	
	• 3 <sup>rd</sup> in Best Student Paper Award at the 14 <sup>th</sup> International Conference on Information Fusion (Prize USD 1000), 2011	
	• Received Honourable Mention in the category of Best Student Paper Award at the 13 <sup>th</sup> 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 <i>Intelligent Fault Diagnosis Technologies</i> , 2008	
	• L.N. Fryer Physics Prize, 2001	

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

PAPERS UNDER REVIEW	"Network constraints on the mixing patterns of binary node metadata" M. Cinelli, <b>L. Peel</b> , A. Iovanella, J-C. Delvenne <i>Submitted 2019</i>	(arXiv:1908.04588)
REFEREED PUBLICATIONS	"Community detection in networks without observing edges" T. Hoffman, <b>L. Peel</b> , R. Lambiotte, N. Jones <i>Science Advances</i> , 2020 <b>6</b> (4): eaav1478 Preprint featured on the PLOS Complexity Channel, Sept. 2018	(arXiv:1808.06079)
	"Individual perception dynamics in drunk games" A. Antonioni, L. A. Martinez-Vaquero, C. Mathis, <b>L. Peel</b> , M. Stella <i>Physical Review E</i> , 2019 <b>99</b> (5): 052311 Featured on the Physical Review E Kaleidoscope, May 2019	(arXiv:1807.08635)
	"The architecture of an empirical genotype-phenotype map" J. Aguilar-Rodríguez, <b>L. Peel</b> , M. Stella, A. Wagner, J. Payne <i>Evolution</i> , 2018 <b>72</b> (6): 1242–1260 Top 10% Most Downloaded Paper 2018–2019	
	"Multiscale mixing patterns in networks" <b>L. Peel</b> , J-C. Delvenne, R. Lambiotte <i>Proc. Natl. Acad. Sci. USA</i> , 2018 <b>115</b> (16): 4057–4062	(arXiv:1708.01236)
	"The ground truth about metadata and community detection in networks" <b>L. Peel</b> , D. Larremore, A. Clauset <i>Science Advances</i> , 2017 <b>3</b> (5): e1602548	(arXiv:1608.05878)

- “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%
- “Detectability thresholds and optimal algorithms for community structure in dynamic networks”  
 A. Ghasemianlangroodi, P. Zhang, A. Clauset, C. Moore, **L. Peel**  
*Physical Review X*, 2016 **6** (3): 031005 (arXiv:1506.06179)
- “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%)
- “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%
- “Active discovery of network roles for predicting the classes of network nodes”  
**L. Peel**  
*Journal of Complex Networks*, 2014 **3** (3): 431-449. (arXiv:1312.7258)
- “Maritime anomaly detection using Gaussian process active learning”  
 K. Kowalska, **L. Peel**  
*Int. Conf. on Information Fusion (FUSION)*, July 9–12, 2012.
- “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)  
 3<sup>rd</sup> in Best Student Paper Award
- “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%
- “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
- “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
- “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 (ODD<sup>2</sup> 2014)*, Aug 24, 2014.
- “Supervised blockmodelling”  
**L. Peel**  
*ECML/PKDD Works. on Collective Learning and Inference in Structured Data(CoLISD)*, Sep 28, 2012. (arXiv:1209.5561)

“Fast maritime anomaly detection using kd-tree Gaussian processes”

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

IMA Mathematics in Defense Conference, Oct 20, 2011.

## PATENTS

**L. Peel**, Detecting a least one community in a network. *International Application No.: PCT/GB2011/050464*, Publication Date: 22.09.2011 International Filing Date: 09.03.2011

## INVITED TALKS

- 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, 2020
- 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
- 6<sup>th</sup> Mediterranean School of Complex Networks, Salina, IT, Sep 6, 2019
- 5<sup>th</sup> 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, 2019
- 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
- 5<sup>th</sup> 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, 2018
- 9<sup>th</sup> 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, 2016
- 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, 2015
- 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, 2014
- Euro. Partners Against Corruption 12<sup>th</sup> Conf., Barcelona, ES, Nov 22, 2012
- UCL CPC Project Launch Event, Univ. College London, UK, May 18, 2012
- IEEE Conf. on Prognostics and Health Mgmt., Denver, CO, US, Oct 6–9, 2008

## CONTRIBUTED TALKS

- Int. Conf. on Network Science (NetSci), Rome, IT, Sep 23, 2020
- Complex Networks and their Applications, Lisbon, PT, Dec 12, 2019
- Int. Conf. on Network Science (NetSci), Burlington, VT, US, May 29, 2019
- 10<sup>th</sup> Conf. on Complex Networks (CompleNet), Tarragona, ES, Mar 19, 2019
- 8<sup>th</sup> Belgian Network Research Meeting, Hasselt, BE, Feb 22, 2019
- Complex Networks and their Applications, Cambridge, UK, Dec 12, 2018
- The 2018 Conf. on Complex Systems (CCS), Thessaloniki, GR, Sep 25, 2018
- The 2018 Conf. on Complex Systems (CCS), Thessaloniki, GR, Sep 24, 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, 2018
- 7<sup>th</sup> Belgian Network Research Meeting, Ghent, BE, Dec 6, 2017

	<ul style="list-style-type: none"> <li>• <i>Int. Conf. on Complex Networks and their Applications</i>, Lyon, FR,</li> <li>• <i>The 2017 Conf. on Complex Systems (CCS)</i>, Cancun, MX,</li> <li>• <i>The 2017 Conf. on Complex Systems (CCS)</i>, Cancun, MX,</li> <li>• <i>The 2017 Conf. on Complex Systems (CCS)</i>, Cancun, MX,</li> <li>• <i>Int. Conf. on Network Science (NetSci)</i>, Indianapolis, IN, US,</li> <li>• <i>Statistical Inference for Network Models works.</i>, NetSci2017, IN, US,</li> <li>• <i>Machine Learning in Network Science works.</i>, NetSci2017, IN, US,</li> <li>• <i>Machine Learning Conf. of the Benelux (BeneLearn)</i>, Eindhoven, NL,</li> <li>• <i>SIAM Int. Conf. on Data Mining (SDM)</i>, Houston, TX, US,</li> <li>• <i>8<sup>th</sup> Workshop on Complex Networks (CompleNet)</i>, Dubrovnik, HR,</li> <li>• <i>8<sup>th</sup> Workshop on Complex Networks (CompleNet)</i>, Dubrovnik, HR,</li> <li>• <i>The 2016 Conf. on Complex Systems (CCS)</i>, Amsterdam, NL,</li> <li>• <i>The 2016 Conf. on Complex Systems (CCS)</i>, Amsterdam, NL,</li> <li>• <i>Int. Conf. on Network Science (NetSci)</i>, Seoul, KR,</li> <li>• <i>IEEE Int. Conf. on Data Mining (ICDM)</i>, Atlantic City, NJ, US,</li> <li>• <i>5<sup>th</sup> Belgian Network Research Meeting</i>, Namur, BE,</li> <li>• <i>Outlier Detection &amp; Description under Data Diversity</i>, NY, US,</li> <li>• <i>Complex Systems Summer School</i>, Santa Fe Institute, NM, US,</li> <li>• <i>Int. Conf. on Network Science (NetSci)</i>, Berkeley, CA, USA,</li> <li>• <i>Collective Learning and Inference in Structured Data</i>, Bristol, UK,</li> <li>• <i>Int. Conf. on Information Fusion (FUSION)</i>, SG,</li> <li>• <i>Int. Conf. on Information Fusion (FUSION)</i>, Chicago, IL, US,</li> <li>• <i>Int. Conf. on Information Fusion (FUSION)</i>, Edinburgh, UK,</li> </ul>	<p>Dec 1, 2017</p> <p>Sep 19, 2017</p> <p>Sep 19, 2017</p> <p>Sep 18, 2017</p> <p>Jun 21, 2017</p> <p>Jun 20, 2017</p> <p>Jun 19, 2017</p> <p>Jun 9, 2017</p> <p>Apr 28, 2017</p> <p>Mar 23, 2017</p> <p>Mar 21, 2017</p> <p>Sep 22, 2016</p> <p>Sep 22, 2016</p> <p>Jun 1, 2016</p> <p>Nov 17, 2015</p> <p>Sep 30, 2015</p> <p>Aug 24, 2014</p> <p>Jul 3, 2014</p> <p>Jun 5, 2014</p> <p>Sep 28, 2012</p> <p>Jul 9, 2012</p> <p>Jul 6, 2011</p> <p>Jul 26, 2010</p>
CONFERENCE POSTERS	<ul style="list-style-type: none"> <li>• M. Faccin, <b>L. Peel</b>, A. Bovet, B. Chiem, L. Gutierrez Gomez, A. Medvedev, M. Seth, J-C. Delvenne, The variability of network structures inferred from time series data. <i>Conference on Complex Networks</i>, December 2019</li> <li>• <b>L. Peel</b>, Graph-based semi-supervised learning for relational networks. <i>SIAM International Conference on Data Mining</i>, April 2017</li> <li>• <b>L. Peel</b>, D. Larremore, A. Clauset, The ground truth about metadata and community detection in networks. <i>Conference on Complex Networks</i>, December 2016</li> <li>• <b>L. Peel</b>, D. Larremore, A. Clauset, The ground truth about metadata and community detection in networks. <i>7th Workshop on Complex Networks</i>, March 2016</li> <li>• <b>L. Peel</b>, A. Clauset, Detecting large-scale changes in the structure of evolving networks. <i>29th AAAI Conference on Artificial Intelligence</i>, January 26, 2015.</li> <li>• T. Cheng, K. Bowers, P. Longley, J. Shawe-Taylor, R. Davenport, S. Moat, <b>L. Peel</b>, Crime, policing and citizenship. <i>RCUK Global Uncertainties Ideas and Beliefs Showcase Event</i>, October 1, 2012.</li> <li>• <b>L. Peel</b>, Inference of abnormal behaviour in shipping vessels. <i>CPC Launch Event</i>, May 18, 2012.</li> <li>• <b>L. Peel</b>, Topological feature based classification. <i>Machine Learning Summer School</i>, September 4–17, 2011.</li> </ul>	
FUNDING	<p>Workshop support fund (WWCS18),  <b>Workshop organiser</b>, (Co-organisers: S. Selakovic, Q. Feng, J. Garcia-Bernardo)  <i>multiple sources: (Utrecht Uni. UNamur, Corpnnet, CSS)</i>, 2018</p> <p>Integrated response for infectious disease surveillance: Development and application of AI models for TB control  <b>Technical and scientific manager</b>, (PIs: J-C. Delvenne, M. Delmée, X. Morelle)  <i>Innoviris Team Up</i>, 2017</p> <p>Methods for detecting changes in the structure of complex networks  <b>Individual fellowship</b>  <i>FNRS Chargé de Recherche</i>, 2017-20</p> <p>DataBeers Brussels  <b>Event organiser</b>  <i>multiple sources: (VUB, ISACA, Dataminded, UCL, Dataiku, B&amp;D)</i>, 2016-20</p> <p>Detecting large-scale structures in collections of networks  <b>Individual fellowship</b>  <i>MOVE-IN Louvain (co-funded by Marie-Curie actions)</i>, 2016-7</p>	<p>7,500 EUR</p> <p>1,133,717 EUR</p> <p>230,700 EUR</p> <p>5,718 EUR</p> <p>112,000 EUR</p>

	Travel fellowships (total)	2,155 EUR
	<b>Individual travel fellowship</b> <i>FNRS, 2015-7</i>	
	Maritime wide area surveillance using AIS data	300,000 GBP
	<b>Project manager and technical lead</b> <i>BAE Systems TTP, 2011</i>	
	Role detection in networks	100,000 GBP
	<b>Project manager and technical lead</b> <i>BAE Systems TTP, 2010</i>	
PRESS	<ul style="list-style-type: none"> <li>Community Detection <b>phys.org</b> Jenna Marshall, May 4, 2017 (also in <b>Science Newsline</b> and <b>Eurekalert</b>)</li> <li>Sports Scoring <b>Clyde Street</b> Keith Lyons, February 21, 2017 <b>Clyde Street</b> Keith Lyons, August 5, 2017</li> <li>Crime, Policing and Citizenship <b>The Guardian</b> Ami Sedghi, October 30, 2012</li> </ul>	
ACADEMIC SERVICE	<b>Editorial</b> Academic Editor, <i>PLOS ONE</i>	2019 – present
	Guest Editor, <i>PLOS ONE Special Issue of the 8<sup>th</sup> International Conference on Complex Networks and Their Applications</i>	2019
	Guest Editor, <i>Applied Network Science Special Issue of the 7<sup>th</sup> International Conference on Complex Networks and Their Applications</i>	2018
	<b>Workshop Organiser</b> Network Reconstruction Science-athon Co-organisers: Alexandre Bovet, Benjamin Chiem, Mauro Faccin, Leo Gutierrez, Alexey Medvedev, Mridul Seth Beaumont, Belgium. August 2019	
	Winter Workshop on Complex Systems 2018 Co-organisers: Sanja Selakovic, Qingyi Feng, Javier Garcia-Bernardo Utrecht, The Netherlands. February, 2018	
	Belgian Network Research Meeting (BeNet) 2016 Co-organisers: Sophie Béreau, Jean-Charles Delvenne, Yerali Gandica, Leo Gutierrez, Mauro Faccin, Michael Schaub Louvain-la-neuve, Belgium. December, 2016	
	Conference on Complex Systems 2016 workshop on Coarse-graining Complex Systems Co-organisers: Mauro Faccin, Renaud Lambiotte, Michael Schaub Amsterdam, The Netherlands. September 21, 2016	
	NetSci 2015 2nd workshop on Statistical Inference for Network Models Co-organisers: Aaron Clauset, Abigail Z. Jacobs and Dan Larremore Zaragoza, Spain. June, 2015	
	NIPS 2014 workshop on Networks: From Graphs to Rich Data Co-organisers: Edo Airoldi, David Choi, Aaron Clauset and Johan Ugander Montreal, Quebec, Canada. December 13, 2014	
	NetSci 2014 workshop on Statistical Inference for Network Models Co-organisers: Aaron Clauset, Abigail Z. Jacobs and Dan Larremore Berkeley, California, USA. June 2, 2014	

### **Technical Program Committee Member**

The Web Conference ( <i>formerly: WWW</i> )	2017 – 2021
ACM International Conference on Web Search and Data Mining (WSDM)	2016, 2020 – 2021
AAAI Conference on Artificial Intelligence (AAAI)	2016 – 2020
AAAI Conference on Web and Social Media (ICWSM)	2016 – 2020
International Conference on Complex Networks and their Applications	2017 – 2020
International School and Conference on Network Science (NetSci)	2017, 2019 – 2020
International Conference on Complex Networks (CompleNet)	2018, 2020
International School and Conference on Network Science (NetSci-X)	2020
ACM Web Science Conference (WebSci)	2014, 2020
International Workshop on Machine Learning with Graphs (MLG)	2019
International Conference on Social Informatics (SocInfo)	2017 – 2018
International Workshop on Dynamics on and of Networks (DYNO)	2018
SIAM Workshop on Network Science (NS)	2018
Workshop on Data Science for Human Performance in Social Networks	2017
SDM Workshop on Mining Networks and Graphs	2015
International Conference on Information Fusion (FUSION)	2010 – 2012

### **Reviewer**

#### Journals

*Algorithms, Applied Network Science, BMC Bioinformatics, Chaos, Data Mining and Knowledge Discovery, Entropy, Europhysics Letters, IEEE Communications Magazine, IEEE Intelligent Systems, Journal of Machine Learning Research, 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 One, PNAS, Proceedings of the IEEE, Proceedings of the Royal Society A, Science Advances, Scientific Reports, SIAM Journal on Applied Mathematics, 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*

#### Conferences

AAAI (2014, 2016-2020), CompleNet (2018, 2020), Complex Networks (2017-2019), FUSION (2010-2012), ICWSM (2014-2019), NetSci (2017, 2019), NetSciX (2020), SocInfo (2017-2018), SC (2017-2018), WebSci (2014, 2020), WSDM (2016), WWW (2014-2015, 2017-2019)

#### Workshops

Benelux meeting on systems and control (2017), Belgian Network Research Meeting (2016), CCS Corse-graining complex systems (2016), Data Science for Human Performance in Social Networks (2017), NetSci workshop on Statistical Inference for Network Models (2014), NIPS workshop on Networks: From Graphs to Rich Data (2014), SDM Workshop on Mining Networks and Graphs (2015)

### **Other Service Roles**

Tutorial Chair	2020
International Conference on Complex Networks and Their Applications	
Steering committee member	2018 – 2021
Winter Workshop on Complex Systems	
Publicity Chair	2018 – 2019
International Conference on Complex Networks and Their Applications	
Advisory panel member	2017 – 2018
W. England Academic Health Science Network Digital Engagement Platform	
Elected council member	2016 – 2019
Complex Systems Society	

STUDENT  
ADVISING

**Doctoral Students**

Matteo Cinelli (with A. Iovanello), Uni. of Rome Tor Vergata	2017 – 2019
Leonardo Gutierrez Gomez (with J-C. Delvenne), ICTEAM, UCLouvain	2016 – 2019
Amir Ghasemian (with A. Clauset), Comp. Sci., CU Boulder	2015 – 2016

**Masters Students**

Kira Kowalska (intern), BAE Systems ATC / Eng. Maths, U. of Bristol	2011
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**Undergraduate Students**

Henri Devillez (with M. Faccin), Applied Maths, UCLouvain	2016
Margerie Huet (with M. Faccin), Elec. Eng., UCLouvain	2016
Robert Cazaciuc (intern), BAE Systems ATC / Comp. Sci., U. of York	2011
Chris Howarth (intern), BAE Systems ATC / Maths, U. of Bath	2009 – 2010
Robert Presley (intern), BAE Systems ATC / Maths, U. of Bath	2008

TEACHING

**University Courses**

• Algorithms in data science LINMA 2472 (Graduate) Lecturer – UCLouvain	Autumn 2019
• Algorithms in data science LINMA 2472 (Graduate) Lecturer – UCLouvain	Autumn 2018
• Algorithms in data science LINMA 2472 (Graduate) Lecturer – UCLouvain	Autumn 2017
• Integer Programming LINMA 2450 (Graduate) Teaching Assistant – UCLouvain	Autumn 2015
• Algorithms CSCI 3014 (Undergraduate) Guest Lecturer – University of Colorado	Spring 2014
• Networks CSCI 5352 (Graduate) Guest Lecturer – University of Colorado	Autumn 2014
• Networks CSCI 5352 (Graduate) Guest Lecturer – University of Colorado	Autumn 2013

**Tutorial Seminars**

- Network inference in practice.  
Mediterranean School of Complex Networks, Salina, Italy. September, 2019
- Network inference in practice.  
Mediterranean School of Complex Networks, Salina, Italy. September, 2018
- Philosophy and practice of community detection  
Winter Workshop on Complex Systems, Petnica Science Centre, Serbia. February 2017
- Philosophy and practice of community detection  
ASCI Tutorial Seminar, UCLouvain, Belgium. March 2017

OUTREACH

**DataBeers Brussels** *Founder and Organiser*

2016 – 2020

with Jelena Grujic, Johan Loeckx, Eline Vanwalleghem, Marie Hargitt and Ramanuja Rao 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 Doms
- 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 Truysers, 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 Poncet, Shamma Raghieb, Daniel Perez, Bavo Van den Heuvel
- November 2016  
*Speakers:* Christina Makarona, Pierre Deville, Marc Vael, Pieter Colpaert

SCHOOLS AND  
COURSES  
ATTENDED

- Mediterranean School of Complex Networks, Sicily, 2015
- Summer Teaching as Research Institute for Post-docs in Engineering (STRIPE), University of Colorado, *Boulder, Colorado, USA*, 2014
- Complex Systems Summer School, Santa Fe Institute, *Santa Fe, New Mexico, USA*, 2014
- Machine Learning Summer School, MLSS Series, *Bordeaux, France*, 2011
- Pattern Analysis and Time Series Modelling, Aston University, *Aston, UK*, 2008
- Simultaneous Localisation And Mapping Summer School, SLAM Summer School Series, *Oxford, UK*, 2006
- PRINCE 2 Foundation and Practitioner Project Management, OCG, *UK*, 2006

HARDWARE AND  
SOFTWARE SKILLS

Computer Programming:

- Python, Java, C++, JavaScript, SQL, Prolog, Fril, Hadoop, Html

Numerical Analysis:

- Numpy/Scipy, MATLAB, R

Desktop Editing and Production Software:

- Vim, Scite,  $\text{\LaTeX}$  ( $\text{\LaTeX}$ ,  $\text{\BibTeX}$ ), Microsoft Office, OpenOffice.org, Google Docs, InkScape, D3.js, Matplotlib

Operating Systems:

- Microsoft Windows family, Linux