# Alessandro Zocca

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## Research interests

**Stochastic networks, rare events analysis, network optimization, operations research, reinforcement learning, power systems resilience, extreme weather events.**

My research is centered around the study of complex networked systems in which randomness plays a crucial role. More specifically, I study **dynamics and rare events in networks affected by uncertainty**, drawing motivation from real-world applications in power systems. My work lies mostly in the area of applied probability but has deep ramifications in areas as diverse as operations research, graph theory, and optimization.

My long-term goal as a researcher is twofold. First, I aim to quantify and analyze the randomness emerging in these complex systems using both **rigorous mathematical tools** and **data-driven learning methods**. Second, I plan to develop adaptive algorithms and reinforcement learning control strategies to mitigate the impact of high-impact, low-probability events and enhance network robustness.

As the **climate crisis** exacerbates the frequency and severity of extreme weather events, my research aims to develop a novel and rigorous mathematical understanding of **power systems resilience** against such phenomena, which naturally exhibit pronounced spatial and temporal correlations.

More broadly, I am interested in stochastic dynamics on networks, especially when a non-trivial interplay emerges between the network structure and the system's randomness, a setting where **applied probability**, **learning**, and **optimization** naturally meet.

## Education

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|---|---|
| Sep 2011 – Dec 2015 | **Eindhoven University of Technology**, The Netherlands<br>PhD in *Mathematics*<br>Thesis: Spatio-temporal dynamics of random-access networks: An interacting particle approach<br>Advisors: Prof. Sem Borst, Prof. Johan van Leeuwaarden, Prof. Francesca Nardi |
| 2012 – 2013 | Diploma (grade 9.0/10) by the **LNMB** (*Dutch Network for the Mathematics of Operations Research*) |
| 2010 – 2011 | **University of Cambridge**, United Kingdom<br>Master of Advanced Studies (Part III) in *Mathematics*, **with merit**<br>Essay: Random spanning trees<br>Assessor: Prof. Geoffrey Grimmett |
| 2007 – 2010 | **Università degli Studi di Padova**, Italy<br>Bachelor in *Mathematics*, **110/110 cum laude** *(with honors)*<br>Thesis: Random Fragmentation Chains<br>Supervisor: Prof. Paolo Dai Pra |

## Academic Employment

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|---|---|
| Oct 2019 – present | **Vrije Universiteit Amsterdam**, Amsterdam<br>*Department of Mathematics*<br>Tenured assistant professor (UD1) |
| Mar 2021 – present | **Centrum Wiskunde & Informatica (CWI)**, Amsterdam<br>Affiliate Researcher |
| Sep 2017 – Sep 2019 | **California Institute of Technology**, Pasadena, CA<br>*Computing and Mathematical Sciences Department*<br>Postdoctoral scholar<br>Mentors: Prof. Adam Wierman and Prof. Steven Low |
| Dec 2017 – Sep 2019 | **Resnick Sustainability Institute**, Pasadena, CA<br>Affiliate postdoctoral fellow |
| Jan 2016 – Aug 2017 | **Centrum Wiskunde & Informatica (CWI)**, Amsterdam<br>Postdoctoral scholar<br>Mentor: Prof. Bert Zwart |

## Awards and grants

2025 **NWO Vidi grant** (€ 850.000, 5 years of funding)
Project: *"Power Network Optimization in the Age of Climate Extremes"*

Vidi is a prestigious funding program for experienced researchers of the NWO (Netherlands Organization for Scientific Research) to support groundbreaking and high-impact projects.

2017 **NWO Rubicon grant** (€ 135.000, 2 years of postdoc funding, ref. # 680.50.1529)
Project: *"Renewables and uncertainty in future power systems: Mathematical challenges and solutions"*

Rubicon is a highly competitive grant open for all scientific disciplines awarded by the NWO (Netherlands Organization for Scientific Research), which gives talented young researchers the chance to gain experience at a top research institution abroad.

2015 **Applied Probability Trust award** for the best PhD thesis in applied probability

**Travel grants**
2020, 2021 STAR Visitor grant (co-applicant)
2019 Isaac Newton Institute CPS bursary (recipient) for the thematic semester *"The mathematics of energy systems"* in Cambridge, UK
2018, 2016, 2012 Stochastic Networks conferences travel grants (recipient)
2013 Performance conference travel grants (recipient)

## Professional memberships

IEEE, INFORMS and Applied Probability Society, ACM and Sigmetrics, LNMB

## Certifications

Oct 2021 **University Teaching Qualification (UTQ)** recognized by Dutch universities

Sep 2019 Italian **National Scientific Habilitation** (ASN) as Associate Professor (sector 01/A3 - Analysis, Probability Theory and Statistics - MAT/06)

## List of publications

In reverse chronological order (see also my Google Scholar webpage):

1. B. Markhorst, J. Berkhout, A. Zocca, J. Pruyn, R. van der Mei, **Future-proof ship pipe routing: Navigating the energy transition**, 2025. In *Ocean Engineering*, Vol. 319, p. 120113. 10.1016/j.oceaneng.2024.120113
2. S. Baldassarri, V. Jacquier, A. Zocca, **Critical configurations of the hard-core model on square grid graphs**, 2025. To appear in *Combinatorics, Probability and Computing*. arXiv:2308.05041
3. B. Markhorst, M. Leitner, J. Berkhout, A. Zocca, R. van der Mei, **A Two-Step Warm Start Method Used for Solving Large-Scale Stochastic Mixed-Integer Problems**, 2024. Submitted to *Networks*. arXiv:2412.10098
4. J. Janssen, A. Zocca, B. Zwart, J. Kazempour, **Dynamic Dimensioning of Frequency Containment Reserves: The Case of the Nordic Grid**, 2024. Submitted to *IEEE Transactions on Power Systems*. arXiv:2411.11093
5. C. Franssen, A. Zocca, B. Heidergott, **A First-Order Gradient Approach for the Connectivity Analysis of Weighted Graphs**, 2024. Submitted to *IEEE Transactions on Automatic Control*. arXiv:2403.11744v2
6. F. Giacomarra, G. Bet, A. Zocca, **Generating synthetic power grids using Exponential Random Graphs**, 2024. *Physical Review X Energy*, 3, 023005. 10.1103/PRXEnergy.3.023005
7. B. Markhorst, J. Berkhout, A. Zocca, J. Pruyn, R. van der Mei, **Sailing through uncertainty: ship pipe routing and the energy transition**, 2024. In *International Marine Design Conference* 10.59490/imdc.2024.891
8. M. Goodridge, S. Lakshminarayana, A. Zocca, **Uncovering Load-Altering Attacks Against N-1 Secure Power Grids: A Rare-Event Sampling Approach**, 2024. In *IEEE Transactions on Power Systems*. 10.1109/TPWRS.2024.3419725
9. E. van der Sar, A. Zocca, S. Bhulai, **Multi-Agent Reinforcement Learning for Power Grid Topology Optimization**, 2023. Submitted to *PSCC 2024*. arXiv:2310.02605
10. L. Werner, N. Christianson, A. Zocca, A. Wierman, S. Low, **Pricing uncertainty in stochastic multi-stage electricity markets**, 2023. In *2023 IEEE Conference on Decision and Control (CDC)*, pp. 1580–1587 10.1109/CDC49753.2023.10384022
11. M. Goodridge, S. Lakshminarayana, A. Zocca, **Analysis of Cascading Failures Due to Dynamic Load-Altering Attacks**, 2023. *2023 IEEE SmartGridComm conference*. 10.1109/SmartGridComm57358.2023.10333960
12. L. Lan, A. Zocca, **Mixed-integer linear programming approaches for tree partitioning of power networks**, 2023. Submitted to *IEEE Transactions on Control of Network Systems*. arXiv:2110.07000
13. S. Baldassarri, A. Gallo, V. Jacquier, A. Zocca, **Ising model on clustered networks: A model for opinion dynamics**, 2023. In *Physica A: Statistical Mechanics and its Applications*, vol. 623, pp. 128811. 10.1016/j.physa.2023.128811
14. L. Guo, C. Liang, A. Zocca, S.H. Low, A. Wierman, **Adaptive Network Response to Line Failures in Power Systems**, vol. 10, no. 1, pp. 333-344, 2022. In *IEEE Transactions on Control of Network Systems*. 10.1109/TCNS.2022.3203367

15. C. Liang, A. Zocca, S.H. Low, A. Wierman, **Interface Networks for Failure Localization in Power Systems**, 2022. In *2022 American Control Conference (ACC)*, pp. 4540-4546. 10.23919/ACC53348.2022.9867209

16. M. Goodridge, J. Moriarty, J. Vogrinc, and A. Zocca, **Hopping between distant basins**, 2022. *Journal of Global Optimization*, vol. 84, pp. 465–489. 10.1007/s10898-022-01153-z

17. A. Zocca, C. Liang, L. Guo, S.H. Low, and A. Wierman, **A Spectral Representation of Power Systems with Applications to Adaptive Grid Partitioning and Cascading Failure Localization**, 2021. *Submitted* arXiv:2105.05234

18. G. Bet, J. Selen, A. Zocca, **Weighted Dyck paths for nonstationary queues**, 2022. *Stochastic Models*, 38:2, 268-287. 10.1080/15326349.2021.2011748

19. J. Moriarty, J. Vogrinc, and A. Zocca, **A Metropolis-class sampler for targets with non-convex support**, 2021. *Statist. Comput.*, vol. 31, no. 72. 10.1007/s11222-021-10044-4

20. T. Nesti, J. Moriarty, A. Zocca, B. Zwart, **Large Fluctuations in Locational Marginal Prices**, 2021. *Philosophical Transactions of the Royal Society A*, vol. 379, no. 2202, pp. 20190438. 10.1098/rsta.2019.0438

21. L. Guo, C. Liang, A. Zocca, S.H. Low, and A. Wierman, **Line Failure Localization of Power Networks Part I: Non-cut outages**, 2021. *IEEE Transactions on Power Systems*, vol. 36, no. 5, pp. 4140–4151. 10.1109/TPWRS.2021.3066336

22. L. Guo, C. Liang, A. Zocca, S.H. Low, and A. Wierman, **Line Failure Localization of Power Networks Part II: Cut Set Outages**, 2021. *IEEE Transactions on Power Systems*, vol. 36, no. 5, pp. 4152–4160. 10.1109/TPWRS.2021.3068048

23. C. Liang, L. Guo, A. Zocca, S. Yu, S.H. Low, and A. Wierman, **An integrated approach for failure mitigation and localization in power systems**, 2021. *Electric Power Systems Research*, Vol. 190, 106613. 10.1016/j.epsr.2020.106613

24. A. Zocca, B. Zwart, **Optimization of stochastic lossy transport networks and applications to power grids**, 2021. In *Stochastic Systems*, vol. 11, no. 1, pp. 34–59. 10.1287/stsy.2019.0063

25. C. Liang, F. Zhou, A. Zocca, S.H. Low, and A. Wierman, **Mitigating Cascading Failures via Local Responses**, 2020. In Proceedings of the *2020 IEEE SmartGridComm conference*. 10.1109/SmartGridComm47815.2020.9302934

26. L. Guo, C. Liang, A. Zocca, S.H. Low, and A. Wierman, **Less is More: Real-time Failure Localization in Power Systems**, 2019. In *2019 IEEE Conference on Decision and Control (CDC)*, pp. 3871–3877, 10.1109/CDC40024.2019.9029393.

27. A. Zocca, **Temporal starvation in multi-channel CSMA networks: an analytical framework**, 2019. In *Queueing Systems*, vol. 91, no. 3-4, pp. 241–263, 10.1007/s11134-019-09598-y.

28. F.R. Nardi, A. Zocca **Tunneling behavior of Ising and Potts models in the low-temperature regime**, 2019. In *Stochastic Processes and their Applications*, vol. 129, no. 11, pp. 4556–4575, 10.1016/j.spa.2018.12.001.

29. L. Guo, C. Liang, A. Zocca, S.H. Low, A. Wierman, **Failure Localization in Power Systems via Tree Partitions**, 2018. In *2018 IEEE Conference on Decision and Control (CDC)*, pp. 6832–6839, 10.1109/CDC.2018.8619562.

30. J. Moriarty, J. Vogrinc, A. Zocca, **Frequency violations from random disturbances: an MCMC approach**, 2018. In *2018 IEEE Conference on Decision and Control (CDC)*,

pp. 1598–1603, 10.1109/CDC.2018.8619304.

31. A. Zocca, **Tunneling of the hard-core model on finite triangular lattices**, 2019. In *Random Structures & Algorithms*, vol. 55, no. 1, pp. 215–246 10.1002/rsa.20795.

32. T. Nesti, A. Zocca, B. Zwart, **Emergent failures and cascades in power grids: A statistical physics perspective**. In *Physical Review Letters 120, 258301*, June 2018, 10.1103/PhysRevLett.120.258301. **Article featured in APS Synopsis 11, s72** (June 2018).

33. A. Zocca, **Low-temperature behavior of the multicomponent Widom-Rowlison model on finite square lattices**. In *Journal of Statistical Physics*, vol. 171, no. 1, 2018, pp. 1–37, 10.1007/s10955-018-1961-9.

34. T. Nesti, A. Zocca, B. Zwart, **Line failure probability bounds for power grids**. In *Proceedings of 2017 IEEE Power & Energy Society General Meeting*, Chicago, IL, USA, 2017, pp. 1–5, 10.1109/PESGM.2017.8274716.

35. T. Nesti, A. Zocca, B. Zwart, **Assessing safe operating regions in power grids under uncertainty** (Extended abstract). In *Proceedings of the Energy-Open conference*, University of Twente, 2017. Available at https://energy-open.nl/.

36. A. Zocca, B. Zwart, **Minimizing heat loss in DC networks using batteries**. In *Proceedings of the 54$^{th}$ Allerton Conference on Communication, Control, and Computing (Allerton)*, Monticello, IL, USA, 2016, pp. 1306–1313, 10.1109/ALLERTON.2016.7852385.

37. F.R. Nardi, A. Zocca, S.C. Borst, **Hitting times asymptotics for hard-core interactions on grids**. In *Journal of Statistical Physics*, vol. 162, no. 2, 2016, pp. 522–576, 10.1007/s10955-015-1391-x.

38. B. Bellalta, A. Checco, A. Zocca and J. Barcelo, **On the interactions between multiple overlapping WLANs using channel bonding**. In *IEEE Transactions on Vehicular Technology*, vol. 65, no. 2, 2016, pp. 796–812, 10.1109/TVT.2015.2400932.

39. A. Zocca, **Spatio-temporal dynamics of random-access networks: An interacting particle approach** (PhD thesis). October 2015, available at the TU/e repository.

40. A. Zocca, S.C. Borst and J.S.H. van Leeuwaarden, **Slow transitions and starvation in dense random-access networks**. In *Stochastic Models*, vol. 31, no. 3, July 2015, pp. 361–402, 10.1080/15326349.2015.1018441.

41. B. Bellalta, A. Zocca, C. Cano, A. Checco, J. Barcelo, A. Vinel. (2014) **Throughput analysis in CSMA/CA networks using continuous-time Markov networks: a tutorial**. Book chapter in *Wireless Networking for Moving Objects*, Lecture Notes in Computer Science, Vol. 8611, pp. 115-133, 10.1007/978-3-319-10834-6.

42. A. Zocca, S.C. Borst, J.S.H. van Leeuwaarden and F.R. Nardi, **Delay performance in random-access grid networks**. In *Performance Evaluation*, vol. 70, no. 10, October 2013, pp. 900–915, 10.1016/j.peva.2013.08.019.

43. A. Zocca, S.C. Borst and J.S.H. van Leeuwaarden, **Mixing properties of CSMA networks on partite graphs**. In *Proceedings of VALUETOOLS 2012*, pp. 117–126, 10.4108/valuetools.2012.250264.

## Books

K. Postek, A. Zocca, J. Gromicho, J. Kantor, **Hands-on Mathematical Optimization in Python**, 2025. *Textbook published by Cambridge University Press.*

Resources and companion code available at https://mobook.github.io/MO-book/

## Supervision, teaching, and service

**Teaching** Lecturer for:

- "*Mathematical Optimization*" (master level, VU, 2019-2024)
- "*Probability Theory*" (bachelor level, VU, 2022-2024)
- "*Project Big Data*" (bachelor level, VU, 2020-2024)
- "*Business Analytics Research Seminar*" (master level, VU, 2019-2024)
- "*Statistical Methods*" (bachelor level, VU, 2021)
- "*Project Business Analytics 1*" (bachelor level, VU, 2019-2021)

**Supervision** Co-supervision of PhD students:

- Jobke Janssen at CWI (2023-present)
  Topic: "*Rare event approaches to frequency reserve markets*"
- Erica van der Sar at VU (2021-present)
  Topic: "*Multi-agent reinforcement learning for power system topology control*"
- Berend Markhorst at VU (2022-present)
  Topic: "*Stochastic optimization for ship design to enable energy transition*"
- Chris Franssen at VU (2022-present)
  Topic: "*First-order gradient methods for network connectivity optimization*"
- Chen Liang at Caltech (2017-2022)
  Topic: "*Cascading failures in power systems, control and mitigation algorithms*"
- Linqi Guo at Caltech (2017-2019)
  Thesis: "*Impact of transmission network topology on electrical power systems*"
- Tommaso Nesti at CWI (2016-2020)
  Thesis: "*Stochastic analysis of energy networks*"

Supervision of master students:

"*Defining Responsibility Areas in MARL for Power Network Control*" (Angel Gil Alamo, VU, 2024)
"*Strategic Supply Chain Planning Under Uncertainty*" (Lucas Kreukniet, VU, 2024)
"*Household energy flexibility and battery control through reinforcement learning*" (Floris Schmidt, VU, 2023)
"*Planning under uncertainty: strategic decision making in supply chain networks*" (Fergus Hathorn, VU, 2023)
"*Integration of maintenance and routing optimization*" (Nina Malbasic, VU, 2023)
"*Online Stock Allocation Strategies: An explorative study of the alternating shipment landscape*" (Renze Dijkstra, VU, 2023)
"*Heineken's cost-effective strategy for achieving Carbon Net Zero* (Anna Tsachouridi, VU, 2023)
"*A Green Supply Chain for Repairable Items at KLM cargo*" (Daan Otto, VU, 2023)
"*Exponential random graph models for synthetic power grids generation*" (Francesco Giacomarra, VU, 2022)
"*Logistics demand forecasting using machine learning models in the animal food industry*" (Rein van Lennep, VU, 2022)
"*Fuel usage estimation and optimization in temperature-controlled vehicle routing*" (Jasper van Doorn, VU, 2021)
"*Spectral Clustering and Combinatorial Optimization for Power Networks reliability*" (Leon Lan, VU, 2021)
"*Imbalance Price Forecasting in the Dutch Energy Market: A Machine Learning Approach*" (Bram Vermeulen, VU, 2020, in collaboration with ENECO)
"*Metastability for the Hard-Core Model on Grid Graphs: Critical Configurations*" (Tommaso Monni, Università di Firenze, 2018)

Supervision of summer undergraduate research projects:

*"Detecting a botnet in geometric random graphs"* (Maciek Sidor, VU, 2023)
*"Frequency Failure Simulation Using the Kuramoto Model"* (Weiting Yu, VU, 2020)
*"Failures in Power Networks: Nonlinear Dynamics"* (Anish Senapati, Caltech, 2019)
*"Failure in Power Networks: Linear Dynamics"* (Maya Mutic, Caltech, 2019)

Supervision of final bachelor theses:

"*Data-Driven Prediction of Renewable Power Generation*", 2023
"*Adaptive forecasting methods for abnormal hospital patients inflow*", 2020

**Editor** Performance Evaluation journal (2021 – present)

**Reviewer** Journals:

- Operations Research
- Mathematics of Operations Research
- Mathematical Methods of Operations Research
- INFORMS Journal on Computing
- IEEE Transactions on Power Systems
- IEEE Transactions on Network Science and Engineering
- IEEE Transactions on Automatic Control
- IEEE Control Systems Letters
- IEEE Transactions on Information Theory
- Journal of Applied Probability
- Stochastic Models
- Nature Communications
- ACM ToMPECS
- Performance Evaluation
- Philosophical Transactions of the Royal Society A
- Journal of Statistical Mechanics: Theory and Experiment (JSTAT)

Conferences:

- ACM Sigmetrics conference
- Power Systems Computation Conference (PSCC)
- IEEE CDC conference
- ACM-SIAM Symposium on Discrete Algorithms (SODA)
- Probabilistic Methods Applied to Power Systems (PMAPS) conference

Conferences (as TPC member):

- IFIP Performance conference 2021
- ACM e-Energy conference 2022, 2023, 2024, 2025
- Valuetools conference 2022, 2023

**Organizer** Organizer of the 2025 IFIP Performance conference

Organizer of the workshop in memory of Francesca Romana Nardi (2022)

EURANDOM ambassador for QPA theme (2021 – present)

YEQT workshop "Winter school on energy systems" at Eurandom (2017)

**Other activities** Partner member of the Amsterdam Data Science initiative (2022 – present)

Chair of the departmental outreach committee (2021 – present)

Member of the internship committee (2019 – present)

Participant of the *Future Distribution Grid R&D Workshop*, organized by the Electric Power Research Institute and DoE (2019)

Initiator of the *Welcome program for new employees* for the department of mathematics at VU Amsterdam (2020)

Collaborator of SEED-Insight (LA chapter) for short explainers for the public of sustainability issues in the context of power grids (2019)

Trainer for Italian (2007-2010) and Dutch Math Olympiads (2022-present)

## Invited research visits

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| Aug 2021 | California Institute of Technology, Pasadena (host: prof. Wierman) |
| Mar 2020 | California Institute of Technology, Pasadena (host: prof. Wierman) |
| Jan 2019 | Thematic semester "*The mathematics of energy systems*" at Isaac Newton Institute (Cambridge, UK) |
| Sep 2018 | DISMA at Politecnico di Torino (hosts: prof. Fagnani and prof. Como) |
| Sep 2017 | Università degli Studi di Firenze (host: prof. Nardi) |
| Dec 2016 | LAMA at Université Paris Est Créteil (host: prof. Sohier) |
| Nov 2016 | California Institute of Technology, Pasadena (host: prof. Wierman) |
| Nov 2015 | Universitat Pompeu Fabra, Barcelona (host: prof. Bellalta) |
| Jul 2014 | EPFL, Lausanne (host: prof. Thiran) |
| May 2014 | Hamilton Institute, Dublin (host: prof. Leith and prof. Duffy) |

## Invited talks and seminars

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| Oct 2024 | INFORMS Annual Meeting 2024, Seattle |
| Mar 2024 | LCN2 (Leiden Complex Networks Network) seminar, Leiden |
| Nov 2023 | PGMO Days 2023, Paris |
| Jun 2023 | INFORMS Applied Probability Society Conference, Nancy |
| Feb 2023 | SIAM Conference on Computational Science and Engineering, Amsterdam |
| Jul 2022 | Workshop for Francesca Romana Nardi, Florence |
| Jun 2022 | 3rd Italian Meeting on Probability and Mathematical Statistics, Bologna |
| Feb 2022 | Digital Energy seminar at CWI (virtual) |
| Oct 2021 | INFORMS Annual Meeting 2021 (virtual) |
| Aug 2021 | Two-part RSRG seminar at Caltech, Pasadena |
| Apr 2021 | KdVI Math Colloquium at University of Amsterdam |
| Nov 2020 | SPOR Seminar at TU Eindhoven |
| Nov 2020 | Mathematics seminar at Università degli Studi di Padova |
| Feb 2020 | Probability and Statistics seminar at TU Delft |
| Jul 2019 | 12th Conference on Monte Carlo Methods and Applications, Sydney |
| Jul 2019 | INFORMS Applied Probability Society Conference, Brisbane |
| May 2019 | Resnick Fellows Seminar Day, Pasadena |
| Jan 2019 | Workshop "*Reliability and Resiliency in Network Infrastructure*", Santiago |
| Jan 2019 | CUED Control Group Seminar, Cambridge |
| Dec 2018 | IFIP WG Performance Conference 2018, Toulouse |
| Dec 2018 | YEQT workshop 2018, Toulouse |
| Nov 2018 | INFORMS Annual Meeting 2018, Phoenix |
| Oct 2018 | CMI seminar at Caltech, Pasadena |
| Sep 2018 | Seminar at DISMA, Politecnico di Torino |
| Jun 2018 | Poster at 2018 Stochastic Networks conference, Edinburgh |
| Jun 2018 | Poster at 2018 ACM Sigmetrics conference, Irvine |
| Mar 2018 | Seminar at Simons Institute, Berkeley |
| Dec 2017 | Opening conference VPSMS 2018, Verona |
| Oct 2017 | INFORMS Annual Meeting 2017, Houston |
| Oct 2017 | CMS seminar at Caltech, Pasadena |
| Jul 2017 | INFORMS Applied Probability Society Conference, Evanston |

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| Jun 2017 | 1st Italian Meeting on Probability and Mathematical Statistics, Torino |
| May 2017 | Seminar at CWI "*Future Energy Systems*" workshop, Amsterdam |
| Apr 2017 | IMA & OR Society Conference on Mathematics of OR, Birmingham |
| Dec 2016 | Seminar at Université Paris Est Créteil, Paris |
| Apr 2016 | Workshop "*Metastability in statistical mechanics and stochastic processes*" EURANDOM, Eindhoven |
| Nov 2015 | Seminar at Università degli Studi di Padova |
| Jul 2015 | INFORMS Applied Probability Society Conference, Istanbul |
| Apr 2015 | Seminar at Mathematical Institute of Leiden University |
| Oct 2014 | Berlin-Padova Young Researchers Meeting, Berlin |
| Jul 2014 | Seminar at EPFL, Lausanne |
| May 2014 | Seminar at Hamilton Institute, Dublin |
| Sep 2013 | IFIP WG Performance Conference 2013, Vienna |
| Jul 2013 | INFORMS Applied Probability Society Conference, San Josè |
| Oct 2012 | 6th International VALUETOOLS Conference, Cargèse |

## Other conferences, schools, and workshops attended

- Workshop "*Reinforcement Learning for Stochastic Networks*", Toulouse (June 2024)
- XXIII Power Systems Computation Conference (PSCC), Paris (Jun 2024)
- 3rd Champéry Power Conference (Feb 2024)
- 6th NREL Workshop on Autonomous Energy Systems, Golden (Sep 2023)
- ACM Sigmetrics and e-Energy conferences, Orlando (Jun 2023)
- XXII Power Systems Computation Conference (PSCC), Porto (Jun 2022)
- "*Real-Time Decision Making Boot Camp*" and "*Societal Networks*" workshops, Simons Institute at Berkeley, January and March 2018
- "*Learning, Algorithm Design and Beyond Worst-Case Analysis*" workshop, Simons Institute at Berkeley, November 2016
- Winter School "*Mathematics of the Energy Transition*", Munich, February 2016
- Stochastic Networks conferences: June 2012 (Boston), June 2014 (Amsterdam), June 2016 (San Diego), June 2018 (Edinburgh)
- Young European Queueing Theorists (YEQT) workshops (2011-2018)