

Ferdinando FIORETTO

Assistant Professor

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Research Interests: Machine Learning | Differential Privacy | Algorithmic Fairness | AI for Science and Engineering

PROFESSIONAL EXPERIENCE

Current	University of Virginia , <i>Computer Science</i> , Charlottesville, VA
Aug. 2023	ASSISTANT PROFESSOR
Jul. 2023	Syracuse University , <i>Electrical Engineering & Computer Science</i> , Syracuse, NY
Jan. 2020	ASSISTANT PROFESSOR
Dec. 2019	Georgia Institute of Technology , <i>School of Industrial and System Engineering</i> , Atlanta, GA
Sep. 2018	POST-DOCTORAL RESEARCHER
Dec. 2018	University of Michigan , <i>Industrial and Operations Engineering</i> , Ann Arbor, MI
Sep. 2016	RESEARCH FELLOW

EDUCATION AND TRAINING

Aug. 2016	University of Udine ¹ , <i>Computer Science</i> , Udine, IT PH.D. IN COMPUTER SCIENCE (WITH MS IN 2012)
Nov. 2009	University of Parma , <i>Computer Science & Mathematics</i> , Parma, IT BS. IN COMPUTER SCIENCE

SELECTED HONORS AND AWARDS

2025	Academic Grant Program Award , NVIDIA. Link
2022	Caspar Bowden PET Award , Privacy Enhancing Technologies (PETs). Link
2022	NSF CAREER Award , National Science Foundation. Press
2022	Google Research Scholar Award , Google (Privacy). Link
2022	Amazon Research Award , Amazon – AWS AI (Responsible AI). Press
2022	Best Paper Award , IEEE Transaction of Power Systems. Link
2022	Early Career Spotlight , International Joint Conference on Artificial Intelligence (IJCAI). Link
2021	Early Career Researcher Award , Association for Constraint Programming. Link
2021	Mario Gerla Young Investigator Award , ISSNAF. Press
2021	Best Paper Award , IEEE Transaction of Power Systems. Link
2017	Best AI Dissertation Award , AI*IA. Press

OTHER AWARDS


2025	Best Paper Award , AAAI colorai workshop. Link
2025	Outstanding Research Faculty Award , University of Virginia. Link
2025	Fellowship in AI Research , LaCross Institute for Ethical AI in Business. Link
2023	ICLR Notable Reviewer Award , International conference on Learning Representations (ICLR). Link
2023	NMSU CS Star Award , New Mexico State University (NMSU). Link
2022	Best Paper Award nomination , Conference on Neural Information Processing Systems (NeurIPS). Link
2022	Top Reviewer Award , Conference on Neural Information Processing Systems (NeurIPS). Link
2021	Outstanding Reviewer Award , Conference on Neural Information Processing Systems (NeurIPS). Link
2020	Differentially Private Temporal Map Challenge Award , \$5000, NIST. Press
2020	Young Investigator Award Nomination , ISSNAF. Press
2019	Invited journal paper , International Joint Conference on Artificial Intelligence (IJCAI). Link
2017	Most Visionary Workshop Paper Award , International Conference of Autonomous Agents and Multiagent Systems (AAMAS). Link
2016	Top Graduate Student Honor's Cord , NMSU.
2014	Outstanding Research Assistant Award , Computer Science, NMSU. Press


1. Dual degree with New Mexico State University

- 2014 **Outstanding Teaching Assistant Nomination**, NMSU.
- 2013 **Best Student Paper Award**, Computational Methods in System Biology (CMSB). [Link](#)
- 2013 **Ph.D. Scholarship Award** (~\$50,000), University of Udine.
- 2013 **Outstanding Teaching Assistant Award**, Computer Science, NMSU. [Press](#)
- 2013 **Computer Science Scholarship** (\$1500), NMSU.
- 2012 **Honors Graduate Recognition for Outstanding Academic Success**, NMSU.
- 2008 **Erasmus Scholarship** (~ \$14, 000), University of Leeds.



















PUBLICATIONS

Summary : > 77 Conference papers > 14 Journals articles > 2 Book chapters > 3 Editorial articles
> 31 Workshop papers > 20+ Preprints

Total citations : 2925 **H-index :** 27  [Google Scholar](#)

Names of students I supervise(d) are prepended with symbol .

RIGOROUSLY PEER REVIEWED CONFERENCES

- c78. Prakhar Ganesh,  Cuong Tran, Reza Shokri, **Ferdinando Fioretto**. “The Data Minimization Principle in Machine Learning”. *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)*, 2025. Acceptance Rate : 26.8%.
- c77.  Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. “Learning To Solve Differential Equation Constrained Optimization Problems”. *Proceedings of the International Conference on Learning Representations (ICLR)*, 2025. Acceptance Rate : 32.02%.
 **[Spotlight]** (5.1% of the accepted papers / 0.01% of all submitted papers.).
- c76.  Jacob K. Christopher,  Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. “Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion”. *Proceedings of the Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL)*, 2025. Acceptance Rate : 26%.
 **[oral]** (22% of the accepted papers / 0.9% of all submitted papers.).
- c75. **Ferdinando Fioretto**, Diptangshu Sen, Juba Ziani. “Differentially Private Data Release on Graphs : Inefficiencies and Unfairness”. *Proceedings of the International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2025. Acceptance Rate : 31.3%.
- c74.  Joonhyuk Ko, Juba Ziani,  Saswat Das, Matt Williams, **Ferdinando Fioretto**. “Fairness Issues and Mitigations in (Differentially Private) Socio-demographic Data Processes”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 2025. Acceptance Rate : 19%.
 **[Oral]** (5% of the accepted papers.).
- c73. FairDP : Certified Fairness with Differential Privacy. “Khang Tran, **Ferdinando Fioretto**, Issa Khalil, My T. Thai, Nha-thai Phan”. In *IEEE Secure and Trustworthy Machine Learning Conference (SaTML 2025)*, 2025. Acceptance Rate : 29.4%.
- c72.  Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. “Constrained Synthesis with Projected Diffusion Models”. *Proceedings of the Conference on Neural Information Processing Systems (NeurIPS)*, 2024. Acceptance Rate : 25.8%.
- c71.  Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. “Physics-Aware Generative Diffusion Models for Micro-structure Material Design”. *AI 4 Material science, at NeurIPS*, 2024. Acceptance Rate : 39%.
 **[Oral]** (6% of the accepted papers.).
- c70.  Jacob K. Christopher,  Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. “Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion”. *Efficient Natural Language and Speech Processing (ENLSP), at NeurIPS*, 2024. Acceptance Rate : 29%.
- c69. Ethan King,  James Kotary, **Ferdinando Fioretto**, Jan Drgona. “Metric Learning to Accelerate Convergence of Operator Splitting Methods for Differentiable Parametric Programming”. *63rd IEEE Conference on Decision and Control (CDC)*, 2024. Acceptance Rate : 56.7%.
- c68.  James Kotary,  Vincenzo Di Vito,  Jacob K. Christopher, Pascal Van Hentenryck, **Ferdinando Fioretto**. “Predict-Then-Optimize by Proxy : Learning Joint Models of Prediction and Optimization”. *Proceedings of the European Conference of Artificial Intelligence (ECAI)*, 2024. Acceptance Rate : 23.3%.

- c67. 🧑🏫 Sree Harsha Nelaturu, 🧑🏫 Nishaanth Kanna Ravichandran, 🧑🏫 Cuong Tran, Sara Hooker, and **Ferdinando Fioretto**. “On The Fairness Impacts of Hardware Selection in Machine Learning”. *Proceedings of the International Conference on Machine Learning (ICML)*, 2024. Acceptance Rate : 27.5%.
- c66. 🧑🏫 Saswat Das, Marco Romanelli, **Ferdinando Fioretto**. “Disparate Impact on Group Accuracy of Linearization for Private Inference”. *Proceedings of the International Conference on Machine Learning (ICML)*, 2024. Acceptance Rate : 27.5%.
- c65. 🧑🏫 My H. Dinh, 🧑🏫 James Kotary, **Ferdinando Fioretto**. “End-to-End Learning for Fair Multiobjective Optimization Under Uncertainty”. *Proceedings of the Conference of Uncertainty on Artificial Intelligence (UAI)*, 2024. Acceptance Rate : 27.0%.
- c64. 🧑🏫 Cuong Tran, Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. “Fairness Increases Adversarial Vulnerability”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2024. Acceptance Rate : 13.9%.
- c63. 🧑🏫 My H. Dinh, 🧑🏫 James Kotary, **Ferdinando Fioretto**. “Learning Fair Ranking Policies via Differentiable Optimization of Ordered Weighted Averages”. *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)*, 2024. Acceptance Rate : 24.3%.
- c62. **Ferdinando Fioretto**, Keyu Zhu, Pascal Van Hentenryck, 🧑🏫 Saswat Das, Christine Task. “Finding ϵ and δ of Traditional Disclosure Control Systems”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 2024. Acceptance Rate : 23.75%.
- c61. 🧑🏫 My H. Dinh, 🧑🏫 James Kotary, **Ferdinando Fioretto**. “Differentiable Approximations of Fair OWA Optimization”. *Workshop on Differentiable Almost Everything*, at ICML, 2024. Acceptance Rate : 27.0%.
- c60. **Ferdinando Fioretto**. “The Data Minimization Principle in Machine Learning”. *Workshop on Generative AI and Law*, at ICML, 2024. Acceptance Rate : 30.0%.
- c60. 🧑🏫 Cuong Tran and **Ferdinando Fioretto**. “Data Minimization at Inference Time”. *Proceedings of the Conference on Neural Information Processing Systems (NeurIPS)*, 2023. Acceptance Rate : 23.0%.
- c59. Vladimir Dvorkin and **Ferdinando Fioretto**. “Price-Aware Deep Learning for Electricity Markets”. *Tackling Climate Change with Machine Learning*, at NeurIPS, 2023. Acceptance Rate : 35.0%.
- c58. 🧑🏫 James Kotary, 🧑🏫 My H. Dinh, **Ferdinando Fioretto**. “Folded Optimization for End-to-End Model-Based Learning”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. Acceptance Rate : 15.0%.
- c57. 🧑🏫 James Kotary, 🧑🏫 Vincenzo Di Vito, **Ferdinando Fioretto**, Pascal Van Hentenryck. “SF-PATE : Scalable, Fair, and Private Aggregation of Teacher Ensembles”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. Acceptance Rate : 15.0%.
- c56. 🧑🏫 James Kotary, 🧑🏫 Vincenzo Di Vito, **Ferdinando Fioretto**. “End-to-End Combinatorial Ensemble Learning”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. Acceptance Rate : 15.0%.
- c55. 🧑🏫 Cuong Tran, **Ferdinando Fioretto**. “On the Fairness Impacts of Private Ensembles Models”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2023. Acceptance Rate : 15.0%.
- c54. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Load Encoding for Learning AC-OPF”. *Proceedings of the IEEE PES General Meeting (PES)*, 2023. Acceptance Rate : N/A.
- c53. 🧑🏫 My H. Dinh, **Ferdinando Fioretto**, Mostafa Mohammadian, and Kyri Baker. “An Analysis of the Reliability of AC Optimal Power Flow Deep Learning Proxies”. *IEEE PES Innovative Smart Grid Technologies*, 2023. Acceptance Rate : unknown.
- c52. 🧑🏫 James Kotary, 🧑🏫 Vincenzo Di Vito, **Ferdinando Fioretto**. “End-to-End Optimization and Learning for Multiagent Ensembles”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2023. Acceptance Rate : 40.0%.
- c51. 🧑🏫 Cuong Tran, **Ferdinando Fioretto**, Jung-Eun Kim, 🧑🏫 Rakshit Naidu. “Pruning has a disparate impact on model accuracy”. *Proceedings of the Conference on Neural Information Processing Systems (NeurIPS)*, 2022. Acceptance Rate : 25.6%.
- 🏆 [Spotlight] (~3% of all paper submissions (10,411, in 2022).).
- c50. Keyu Zhu, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Post-processing of Differentially Private Data : A Fairness Perspective”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2022. Acceptance Rate : 15.0%.
- c49. **Ferdinando Fioretto**, 🧑🏫 Cuong Tran, Keyu Zhu, Pascal Van Hentenryck. “Differential Privacy and Fairness in Decisions and Learning Tasks : A Survey”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2022. Acceptance Rate : 18.0% (survey track).
- c48. **Ferdinando Fioretto**. “Integrating Machine Learning and Optimization to Boost Decision Making”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 2022. Acceptance Rate : Invited.
- 🏆 [Early Career Spotlight] (Accompanying paper.).

- c47. 🧑 James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Ziwei Zhu. “End-to-end Learning for Fair Ranking Systems”. *Proceedings of the ACM Web Conferences (WWW)*, 2022. Acceptance Rate : 17.0%.
- c46. 🧑 James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Fast Approximations for Job Shop Scheduling : A Lagrangian Dual Deep Learning Method”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 2022. Acceptance Rate : 15.0%.
- c45. Lesia Mitridati, Emma Romei, Gabriela Hug, **Ferdinando Fioretto**. “Differentially-Private Heat and Electricity Markets Coordination”. *Proceedings of the International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)*, 2022. Acceptance Rate : N/A.
- c44. Mostafa Mohammadian, Kyri Baker, 🧑 My H. Dinh, **Ferdinando Fioretto**. “Learning Solutions for Intertemporal Power Systems Optimization with Recurrent Neural Networks”. *Proceedings of the International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)*, 2022. Acceptance Rate : N/A.
- c43. 🧑 Cuong Tran, 🧑 My H. Dinh, **Ferdinando Fioretto**. “Differentially Private Deep Learning under the Fairness Lens”. *Proceedings of the Conference on Neural Information Processing Systems (NeurIPS)*, 2021. Acceptance Rate : 26.0%.
- c42. 🧑 James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Learning Hard Optimization Problems: A Data Generation Perspective”. *Proceedings of the Conference on Neural Information Processing Systems (NeurIPS)*, 2021. Acceptance Rate : 26.0%.
- c41. 🧑 Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck, 🧑 Zhiyan Yao. “Decision Making with Differential Privacy under the Fairness Lens”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 560–566, 2021. Acceptance Rate : 13.9%.
- 🏆 [Winner of the 2022 Caspar Bowden PET Award] (Selected among all papers about Privacy Enhancing Technologies published in international conferences between 2020–2022.).
- c40. 🧑 James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Bryan Wilder. “End-to-End Constrained Optimization Learning : A Survey”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 4475–4482, 2021. Acceptance Rate : 30.1%.
- c39. Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. “Bias and Variance of Post-processing in Differential Privacy”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 11177–11184, 2021. Acceptance Rate : 21.0%.
- c38. 🧑 Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Differentially Private and Fair Deep Learning : A Lagrangian Dual Approach”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 9932–9939, 2021. Acceptance Rate : 21.0%.
- c37. 🧑 Anudit Nagar, 🧑 Cuong Tran, **Ferdinando Fioretto**. “A Privacy-Preserving and Accountable Multi-agent Learning Framework”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 1605–1606, 2021. Acceptance Rate : 40.0%.
- c36. **Ferdinando Fioretto**. “Constrained-based Differential Privacy”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, 1868–8969, 2021. Acceptance Rate : Invited.
- c35. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson. “Differentially Private Optimal Power Flow for Distribution Grids”. *IEEE PowerTech*, 2021. Acceptance Rate : N/A.
- c34. **Ferdinando Fioretto**, Pascal Van Hentenryck, Terrence W.K. Mak, 🧑 Cuong Tran, Federico Baldo, Michele Lombardi. “A Lagrangian Dual Framework for Deep Neural Networks with Constraints”. *Proceedings of the European Conference on Machine Learning (ECML)*, 18–135, 2020. Acceptance Rate : 19.0%.
- c33. **Ferdinando Fioretto**, Lesia Mitridati, Pascal Van Hentenryck. “Differential Privacy Stackelberg Games”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 3480–3486, 2020. Acceptance Rate : 12.6%.
- c32. **Ferdinando Fioretto**, Pascal Van Hentenryck. “OptStream : Releasing Time Series Privately”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, 5135–5139, 2020. Acceptance Rate : [Invited to the IJCAI journal track].
- 🏆 (selected papers only.)
- c31. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Privacy-Preserving Obfuscation for Distributed Power Systems”. *Proceedings of the Power Systems Computation Conference (PSCC)*, 2020. Acceptance Rate : 20.5%.
- c30. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. “Predicting AC Optimal Power Flows : Combining Deep Learning and Lagrangian Dual Methods”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 630–637, 2020. Acceptance Rate : 20.6%.
- c29. Atena Tabakhi, William Yeoh, **Ferdinando Fioretto**. “The Smart Appliance Scheduling Problem : A Bayesian Optimization Approach”. *Proceedings of the International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)*, 100–115, 2020. Acceptance Rate : 38.0%.

- c28. **Ferdinando Fioretto**, Pascal Van Hentenryck. “Privacy-Preserving Federated Data Sharing”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 638–646, 2019. Acceptance Rate : 24.0%.
- c27. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. “Privacy-Preserving Obfuscation of Critical Infrastructure Networks”. *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1086–1092, 2019. Acceptance Rate : 17.9%.
- c26. **Ferdinando Fioretto**, Pascal Van Hentenryck. “Differential Privacy of Hierarchical Census Data : An Optimization Approach”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 639–655, 2019. Acceptance Rate : 37.0%.
-  **[Invited to Constraint journal]** (selected papers – declined.).
- c25. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. “Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph”. *Proceedings of the International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)*, pages 106–122, 2018. Acceptance Rate : 26.2%.
- c24. **Ferdinando Fioretto**, Chansoo Lee, Pascal Van Hentenryck. “Constrained-based Differential Privacy for Private Mobility”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1405–1413, 2018. Acceptance Rate : 25.2%.
- c23. Khoi Hoang, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Roie Zivan. “A Large Neighboring Search Schema for Multi-Agent Optimization”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 688–706, 2018. Acceptance Rate : 33.0%.
- c22. **Ferdinando Fioretto**, Pascal Van Hentenryck. “Constrained-based Differential Privacy : Releasing Optimal Power Flow Benchmarks Privately”. *Proceedings of the International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR)*, pages 215–231, 2018. Acceptance Rate : 48.0%.
- c21. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. “Constraint Composite Graph-Based Lifted Message Passing for Distributed Constraint Optimization Problems”. *International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2018. Acceptance Rate : N/A.
- c20. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Ye Ma, Satishkumar J. Ranade. “A Distributed Constraint Optimization (DCOP) Approach to the Economic Dispatch with Demand Response”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 999–1007, 2017. Acceptance Rate : 24.9%.
- c19. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “A Multiagent System Approach to Scheduling Devices in Smart Homes”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 981–989, 2017. Acceptance Rate : 24.9%.
- c18. Khoi Hoang, Ping Hou, **Ferdinando Fioretto**, Makoto Yokoo, William Yeoh, Roie Zivan. “Infinite-Horizon Proactive Dynamic DCOPs”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 212–220, 2017. Acceptance Rate : 24.9%.
- c17. Atena M. Tabakhi, Tiep Le, **Ferdinando Fioretto**, William Yeoh. “Preference Elicitation for DCOPs”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 278–296, 2017. Acceptance Rate : 43.0%.
- c16. Khoi Hoang, **Ferdinando Fioretto**, Ping Hou, Makoto Yokoo, William Yeoh, Roie Zivan. “Proactive Dynamic Distributed Constraint Optimization Problems”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 597–605, 2016. Acceptance Rate : 24.9%.
- c15. Tiep Le, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Tran Cao Son. “ER-DCOPs : A Framework for Distributed Constraint Optimization Problems With Uncertainty”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 606–614, 2016. Acceptance Rate : 24.9%.
- c14. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “Multi-Variable Agent Decompositions for DCOPs”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 2480–2486, 2016. Acceptance Rate : 25.7%.
- c13. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “A Dynamic Programming-Based MCMC Framework for Solving DCOPs with GPUs”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 813–831, 2016. Acceptance Rate : 35.0%.
- c12. **Ferdinando Fioretto**, Tiep Le, Enrico Pontelli, William Yeoh, Tran Cao Son. “Exploiting GPUs in Solving (Distributed) Constraint Optimization Problems with Dynamic Programming”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 121–139, 2015. Acceptance Rate : 48.7%.




- c11. **Ferdinando Fioretto**, Federico Campeotto, Agostino Dovier, Enrico Pontelli, William Yeoh. “*Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems*”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1835–1836, 2015. Acceptance Rate : 46.0%.
- c10. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “*Multi-Variable Agents Decomposition for DCOPs to Exploit Multi-Level Parallelism*”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1823–1824, 2015. Acceptance Rate : 46.0%.
- c9. **Ferdinando Fioretto**. “*Exploiting the Structure of Distributed Constraint Optimization Problems*”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 2007–2008, 2015. Acceptance Rate : N/A.
- c8. **Ferdinando Fioretto**. “*Exploiting the Structure of Distributed Constraint Optimization Problems*”. *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 4233–4234, 2015. Acceptance Rate : N/A.
- c7. (α - β) Federico Campeotto, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “*A GPU Implementation of Large Neighborhood Search for Solving Constraint Optimization Problems*”. *Proceedings of the European Conference of Artificial Intelligence (ECAI)*, pages 189–194, 2014. Acceptance Rate : 28.0%.
- c6. **Ferdinando Fioretto**, Tiep Le, William Yeoh, Enrico Pontelli, Tran Cao Son. “*Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems*”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 307–323, 2014. Acceptance Rate : 49.8%.
- c5. (α - β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “*Exploring the Use of GPUs in Constraint Solving*”. *Proceedings of the Practical Aspects of Declarative Languages (PADL)*, pages 152–167, 2014. Acceptance Rate : 55.0%.
- c4. **Ferdinando Fioretto**, Federico Campeotto, Luca Da Rin Fioretto, William Yeoh, Enrico Pontelli. “*GD-Gibbs : A GPU-based Sampling Algorithm for Solving Distributed Constraint Optimization Problems*”. *Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1339–1340, 2014. Acceptance Rate : 46.0%.
- c3. **Ferdinando Fioretto**, Enrico Pontelli. “*Constraint Programming in Community-based Gene Regulatory Network Inference*”. *Proceedings of the Computational Methods in System Biology (CMSB)*, pages 135–149, 2013. Acceptance Rate : 55.0%.
- 🏆 **[Best Student Paper Award]** .
- c2. (α - β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “*A Filtering Technique for Fragment Assembly-based Proteins Loop Modeling with Constraints*”. *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 850–866, 2012. Acceptance Rate : 36.0%.
- c1. Michael R. Best, **Ferdinando Fioretto**, Alessandro Dal Palù, Enrico Pontelli, Tran Son, TuShun R. Powers, Elba E. Serrano. “*The role of secondary and tertiary structure prediction in determining the function of novel genes found in Xenopus Leavis*”. *Neuroscience*, 2011, (518.20/ZZ45). Acceptance Rate : N/A.

JOURNALS











- j14. Jayanta Mandi, 🌟 James Kotary, Senne Berden, Maxime Mulamba, Victor Bucarey, Tias Guns, **Ferdinando Fioretto**. “*Decision-Focused Learning : Foundations, State of the Art, Benchmark and Future Opportunities*”. *Journal of Artificial Intelligence Research (JAIR)*, (81), pages 1623–1701, 2024.
- j13. Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. “*Gradient-Enhanced Physics-Informed Neural Networks for Power Systems Operational Support*”. *Electric Power Systems Research* (223), pages 109551, 2023.
- j12. Khoi D. Hoang, **Ferdinando Fioretto**, Ping Hou, William Yeoh, Makoto Yokoo, Roie Zivan. “*Proactive Dynamic Distributed Constraint Optimization Problems*”. *Journal of Artificial Intelligence Research (JAIR)*, (73), pages 179–225, 2022.
- j11. **Ferdinando Fioretto**, Pascal Van Hentenryck, Keyu Zhu. “*Differential Privacy of Hierarchical Census Data : An Optimization Approach*”. *Artificial Intelligence Journal (AIJ)*, (296), pages 103475, 2021.
- j10. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour. “*Differentially Private Optimal Power Flow for Distribution Grids*”. *IEEE Transactions on Power Systems*, 36(3), pages 2186–2196, 2021.
- 🏆 **[Best IEEE TPS paper award]** (Given to 8 out of all TPS papers published in 2019–2021.).
- j9. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. “*Differential Privacy for Power Grid Obfuscation*”. *IEEE Transactions on Smart Grids*, 11(2), pages 1356–1366, 2020.

- j8 Terrence W.K. Mak, **Ferdinando Fioretto**, , Lyndon Shi, Pascal Van Hentenryck. “Privacy-Preserving Power System Obfuscation : A Bilevel Optimization Approach”. *IEEE Transactions on Power Systems*, 35(2), pages 1627–1637, 2020.
-  **[Best IEEE TPS paper award]** Given to 7 out of all TPS papers published in 2018–2020)..
- j7 **Ferdinando Fioretto**, Pascal Van Hentenryck. “OptStream : Releasing Time Series Privately”. *Journal of Artificial Intelligence Research (JAIR)*, (65) pages 423–456, 2019.
-  **[Invited to IJCAI 2020 journal track]** .
- j6 **Ferdinando Fioretto**, Agostino Dovier, Enrico Pontelli. “Distributed Multi-Agent Optimization for Smart Grids and Home Automation”. *Intelligenza Artificiale (IA)*, 12 (2), pages : 67–87, 2019.
-  **[Best 2018 Thesis in Artificial Intelligence (AI*IA)]** (Accompanying paper.).
- j5. **Ferdinando Fioretto**, Enrico Pontelli, William Yeoh. “Distributed Constraint Optimization Problems and Applications : A Survey”. *Journal of Artificial Intelligence Research (JAIR)*, 61, pages 623–698, 2018.
- j4. **Ferdinando Fioretto**, William Yeoh. “AI Buzzwords Explained : Distributed Constraint Optimization Problems”. *AI Matters*, 3 (4), pages 8–13, 2018.
- j3. **Ferdinando Fioretto**, Enrico Pontelli, William Yeoh, Rina Dechter. “Accelerating Exact and Approximate Inference for (Distributed) Discrete Optimization with GPUs”. *Constraints*, 23 (1), pages 1–43, 2018.
- j2. **Ferdinando Fioretto**, Agostino Dovier, Enrico Pontelli. “Constrained Community-based Gene Regulatory Network Inference”. *ACM Transactions on Modeling and Computer Simulation (TOMACS)*, 25 (2), pages 11:1–11:26, 2015.
- j1. $(\alpha\text{-}\beta)^2$ Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “A Constraint Solver for Flexible Protein Models”. *Journal of Artificial Intelligence Research (JAIR)*, 48, pages 953–1000, 2013.

BOOK CHAPTERS AND EDITORIAL ARTICLES

- j6. **Ferdinando Fioretto**, Pascal Van Hentenryck, and Juba Ziani. “Differential Privacy Overview and Fundamental Techniques”. *DP Book*, forthcoming.
- j5. **Ferdinando Fioretto**, et al.. “Reports of the Workshops Held at the 2022 AAAI Conference on Artificial Intelligence”. *AI Magazine*, 2022.
- j4. **Ferdinando Fioretto**, et al.. “Reports of the Workshops Held at the 2021 AAAI Conference on Artificial Intelligence”. *AI Magazine*, 2021.
- j3. **Ferdinando Fioretto**, et al.. “Reports of the Workshops Held at the 2020 International Association for the Advancement of Artificial Intelligence Conference on Web and Social Media”. *AI Magazine*, 41(4) 2020.
- j2  William Kluegel,  Muhammad A. Iqbal, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs”. *Lecture Notes in Computer Science (LNCS)*, LNCS, volume 10643 pages 125–142, Springer, 2017.
-  **Visionary Paper Award** (AAMAS workshop series).
- j1. Moinul M.P. Chowdhury, Russell Y. Folk, **Ferdinando Fioretto**, Christopher Kiekintveld, William Yeoh. “Investigation of Learning Strategies for the SPOT Broker in Power TAC”. *AgentMediated Electronic Commerce : Designing Trading Strategies and Mechanisms for Electronic Markets*, volume 271 of *Lecture Notes in Business Information Processing*, pages 96–111, Springer, 2017.

PEER REVIEWED WORKSHOPS

- w31.  Joonhyuk Ko, Juba Ziani,  Saswat Das, Matt Williams, **Ferdinando Fioretto**. “Fairness Issues and Mitigations in (Differentially Private) Socio-demographic Data Processes”. *AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI*, 2025.
-  **[Oral]**.
- w30. Low-rank finetuning for LLMs : A fairness perspective. “ Saswat Das, Marco Romanelli,  Cuong Tran,  Zarreen Reza, Bhavya Kailkhura, **Ferdinando Fioretto**”. *AAAI CoLoRAI Workshop*, 2025.
-  **[Best paper award]**.
- w29.  Jinhao Liang,  Jacob Christopher, Sven Koenig, **Ferdinando Fioretto**. “Multi-Agent Path Finding in Continuous Spaces with Projected Diffusion Models”. *Combining AI and OR/MS for Better Trustworthy Decision Making*, at AAAI, 2025.
-  **[Oral]**.

2. Author list is order alphabetically.








- w28. 🧑‍🔬Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. “OPF-Net : Real-Time Stability Constrained AC Optimal Power Flow”. **AAAI Bridge on Explainable AI, Energy and Critical Infrastructure Systems**, 2025.
- w27. 🧑‍🔬Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. “Physics-Aware Diffusion Models for Micro-structure Material Design”. **ELLIS ML for Molecules and Materials in the Era of LLMs Workshop**, 2024.
- w26. 🧑‍🔬Jacob K. Christopher, Michael Cardei, Brian R Bartoldson, Bhavya Kailkhura, **Ferdinando Fioretto**. “Speculative Diffusion Decoding : Accelerating Language Generation through Diffusion”. **Efficient Natural Language and Speech Processing (ENLSP) workshop – at NeurIPS**, 2024.
- w25. 🧑‍🔬Jacob K. Christopher, Stephen Baek, **Ferdinando Fioretto**. “Constrained Synthesis with Projected Diffusion Models”. **Machine Learning and the Physical Sciences Workshop – at NeurIPS**, 2024.
- w24. Prakhar Ganesh, 🧑‍🔬Cuong Tran, Reza Shokri, **Ferdinando Fioretto**. “The Data Minimization Principle in Machine Learning”. **Workshop on Regulatory ML – at NeurIPS**, 2024.
- w23. 🧑‍🔬My H. Dinh, 🧑‍🔬James Kotary, **Ferdinando Fioretto**. “Differentiable Approximations of Fair OWA Optimization”. **Workshop on Differentiable Almost Everything – at ICML**, 2024.
- w22. **Ferdinando Fioretto**. “The Data Minimization Principle in Machine Learning”. **Workshop on Generative AI and Law – at ICML**, 2024.
- w21. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Pierre Pinson, Jalal Kazempour. “Privacy-Preserving Convex Optimization : When Differential Privacy Meets Stochastic Programming”. **Workshop on Climate Change AI – at NeurIPS**, 2023.
- w20. 🧑‍🔬Cuong Tran, 🧑‍🔬My H. Dinh, **Ferdinando Fioretto**. “A Fairness Analysis on Private Aggregation of Teacher Ensembles”. **AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI**, 2022.
- 🏆 **Spotlight Paper.**
- w19. 🧑‍🔬Cuong Tran, **Ferdinando Fioretto**. “Decision Making with Differential Privacy under the Fairness Lens”. **Theory and Practice of Differential Privacy (TPDP) – at ICML**, 2021.
- w18. 🧑‍🔬Anudit Nagar, 🧑‍🔬Cuong Tran, **Ferdinando Fioretto**. “A Privacy-Preserving and Accountable Multi-agent Learning Framework”. **International Workshop on Learning and Optimization in Multi-Agent Systems (OPTLearnMAS)–at AAMAS**, 2021.
- w17. 🧑‍🔬Cuong Tran, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Differentially Private and Fair Deep Learning : A Lagrangian Dual Approach”. **AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI)–at AAAI**, 2021.
- w16. **Ferdinando Fioretto**, 🧑‍🔬Cuong Tran, Pascal Van Hentenryck. “Lagrangian Duality for Constrained Deep Learning”. **INFORMS**, 2020.
- w15. Lesia Mitridati, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Differential Privacy For Stackelberg Games : An Application To Gas And Electricity Markets”. **INFORMS**, 2020.
- w14. Khoi Hoang, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli, Roie Zivan. “A Large Neighboring Search Schema for Multi-Agent Optimization”. **International Workshop on Optimization in Multi-Agent Systems (OPTMAS)–at AAMAS**, 2019.
- w13. **Ferdinando Fioretto**, Hong Xu, Sven Koenig, TK Satish Kumar. “Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph”. **International Workshop on Optimisation in Multi-Agent Systems (OptMAS)–at AAMAS**, 2018.
- w12. William Kluegel, Muhammad Aamir Iqbal, **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs”. **International Workshop on Optimisation in Multi-Agent Systems (OPTMAS)–at AAMAS**, 2017.
- w11. **Ferdinando Fioretto**, William Yeoh, Enrico Pontelli. “A Multiagent System Approach to Scheduling Devices in Smart Homes”. **Workshop on AI for Smart Grids and Smart Buildings (AISGSB)–at AAAI**, 2017.
- w10. Atena M. Tabakhi, **Ferdinando Fioretto**, William Yeoh. “A Preliminary Study on Preference Elicitation in DCOPs for Scheduling Devices in Smart Buildings”. **10th Workshop on Advances in Preference Handling (MPREF)–at IJCAI**, 2016.
- w9. Porag Chowdhury, Russell Y. Folk, **Ferdinando Fioretto**, Christopher Kiekintveld, William Yeoh. “Investigation of Learning Strategies for the SPOT Broker in Power TAC”. **International Workshop on Agent Mediated Electronic Commerce and Trading Agents Design and Analysis (AMEC/TADA)–at AAMAS**, 2016.
- w8. Khoi Hoang, **Ferdinando Fioretto**, Ping Hou, Makoto Yokoo, William Yeoh, Roie Zivan. “Proactive Dynamic DCOPs”. **Workshop on AI for Smart Grids and Smart Buildings (AISGSB)–at AAAI**, 2016.
- w7. **Ferdinando Fioretto**, Federico Campeotto, Agostino Dovier, Enrico Pontelli, William Yeoh. “Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems”. In **International Workshop on Optimization in Multi-Agent Systems (OptMAS)– at AAMAS**, 2015.

- w6. **Ferdinando Fioretto**, Tiep Le, William Yeoh, Enrico Pontelli, Tran Cao Son. “Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems”. In **International Workshop on Optimization in Multi-Agent Systems (OptMAS)**– at AAMAS, 2015.
- w5. (α - β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “Experimenting with FIASCO for protein structure prediction”. **Workshop on Constraint Based Methods for Bioinformatics (WCB)**–at CP, 2014.
- w4. (α - β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “Towards a complete constraint solver on GPU”. In **Workshop on Parallel Methods for Search & Optimization (ParSearchOpt)**–at ECAI, 2014.
- w3. **Ferdinando Fioretto**, Enrico Pontelli. “Community-based Gene Regulatory Network Inference via Constraint Programming”. **Workshop on Constraint Based Methods for Bioinformatics (WCB)**–at CP, 2013.
- w2. (α - β) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, **Ferdinando Fioretto**, Enrico Pontelli. “Protein Loop Modelling via Constraints and Fragment Assembly”. **Workshop on Constraint Based Methods for Bioinformatics (WCB)**–at CP, 2012.
- w1. (α - β) Michael R. Best, Kabi Bhattarai, Federico Campeotto, Alessandro Dal Palù, Hung Dang, Agostino Dovier, **Ferdinando Fioretto**, Federico Fogolari, Tiep Le, Enrico Pontelli. “Introducing FIASCO : Fragment-based Interactive Assembly for protein Structure prediction with COntstraints”. **Workshop on Constraint Based Methods for Bioinformatics (WCB)**–at CP, 2011.

PRE-PRINTS AND IN-PRESS

- w11.  Michael Cardei,  Jacob K Christopher, Thomas Hartvigsen, Brian R. Bartoldson, Bhavya Kailkhura, and Ferdinando Fioretto. “Constrained Language Generation with Discrete Diffusion Models”. TBD, 2025.
- w10. Shuyi Chen, Ferdinando Fioretto, Feng Qiu, Shixiang Zhu. “Global-Decision-Focused Neural ODEs for Proactive Grid Resilience Management”. **IEEE Transactions on Smart Grids** (under review), 2025.
- w9.  Jinhao Liang,  Jacob K Christopher, Sven Koenig, **Ferdinando Fioretto**. “Simultaneous Multi-Robot Motion Planning with Projected Diffusion Models”. **ICML** (under review), 2025.
- w8.  Stefano Zampini,  Jacob K Christopher, Luca Oneto, Davide Anguita, **Ferdinando Fioretto**. “Training-Free Constrained Generation With Stable Diffusion Models”. **ICML** (under review), 2025.
- w7. Prince Zizhuang Wang,  Jinhao Liang, Shuyi Chen, **Ferdinando Fioretto**, Shixiang Zhu. “Gen-DFL : Decision-Focused Generative Learning for Robust Decision Making”. **ICML** (under review), 2025.
- w6.  Jinhao Liang,  Jacob K. Christopher, Sven Koenig, Ferdinando Fioretto. “Multi-Agent Path Finding in Continuous Spaces with Projected Diffusion Models”. **CoRR abs/2412.17993**, 2025.
- w5.  Vincenzo Di Vito, Mostafa Mohammadian, Kyri Baker, **Ferdinando Fioretto**. “OPF-Net : Real-Time Stability Constrained AC Optimal Power Flow”. **IEEE Transactions on Power Systems** (revision), 2025.
- w4.  My H. Dinh,  James Kotary, Lauryn P. Gouldin, William Yeoh, **Ferdinando Fioretto**. “End-to-End Optimization and Learning of Fair Court Schedules”. **FACCT** (under review), 2025.
- w3.  Saswat Das, Marco Romanelli,  Cuong Tran,  Zarreen Reza, Bhavya Kailkhura, **Ferdinando Fioretto**. “Low-rank finetuning for LLMs : A fairness perspective”. **FACCT** (under review), 2025.
- w2.  James Kotary, **Ferdinando Fioretto**. “Learning Constrained Optimization with Deep Augmented Lagrangian Methods”. **CoRR abs/2403.03454**, 2024.
- w1.  James Kotary,  Jacob K. Christopher,  My H Dinh, and **Ferdinando Fioretto**. “Analyzing and Enhancing the Backward-Pass Convergence of Unrolled Optimization”. **INFORMS journal of computing** (under review), 2024.

ARCHIVED AND EXTENDED VERSIONS OF PUBLISHED PAPERS

- w12.  My H. Dinh, **Ferdinando Fioretto**. “Context-Aware Differential Privacy for Language Modeling”. **CoRR abs/2301.12288**, 2023.
- w11. Sawinder Kaur, **Ferdinando Fioretto**, Asif Salekin. “Deadwooding : Robust Global Pruning for Deep Neural Networks”. **CoRR abs/2202.05226**, 2022.
- w10.  My H. Dinh, **Ferdinando Fioretto**, Mostafa Mohammadian, Kyri Baker. “Towards Understanding the Unreasonable Effectiveness of Learning AC-OPF Solutions”. **CoRR abs/2111.11168**, 2021.
- w9.  Cuong Tran,  My H. Dinh, **Ferdinando Fioretto**. “Differentially Private Deep Learning under the Fairness Lens”. **CoRR abs/2106.02674**, 2021 (extended NeurIPS-21 version).
- w8.  Anudit Nagar,  Cuong Tran, **Ferdinando Fioretto**. “A Privacy-Preserving and Trustable Multi-agent Learning Framework”. **CoRR abs/2106.01242**, 2021. (extended AAMAS-21 version).
- w7.  James Kotary, **Ferdinando Fioretto**, Pascal Van Hentenryck, Bryan Wilder. “End-to-End Constrained Optimization Learning : A Survey”. **CoRR abs/2103.16378**, 2021. (extended IJCAI-21 version).

- w6. Terrence W.K. Mak, **Ferdinando Fioretto**, Pascal Van Hentenryck. “Load Embeddings for Scalable AC-OPF Learning”. **CoRR abs/2101.03973**, 2021.
- w5. Keyu Zhu, Pascal Van Hentenryck, **Ferdinando Fioretto**. “Bias and Variance of Post-processing in Differential Privacy”. **CoRR abs/2010.04327**, 2020 (extended AAI-21 version).
- w4. Minas Chatzos, **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. “High-Fidelity Machine Learning Approximations of Large-Scale Optimal Power Flow”. **CoRR abs/2006.16356**, 2020.
- w3. Vladimir Dvorkin, **Ferdinando Fioretto**, Pascal Van Hentenryck, Jalal Kazempour, Pierre Pinson. “Differentially Private Convex Optimization with Feasibility Guarantees”. **CoRR abs/2006.12338**, 2020.
- w2. **Ferdinando Fioretto**, Terrence W.K. Mak, Pascal Van Hentenryck. “Predicting AC Optimal Power Flows : Combining Deep Learning and Lagrangian Dual Methods”. **CoRR abs/1909.10461**, 2019 (extended AAI-20 version).
- w1. **Ferdinando Fioretto**, Terrence W. K. Mak, Pascal Van Hentenryck. “Privacy-Preserving Obfuscation of Critical Infrastructure Networks”. **CoRR abs/1905.09778**, 2019 (extended IJCAI-19 version).

TEACHING

Responsible AI (CS 7000), *University of Virginia*

Spring 2024 | COURSE EVALUATION : 4.8 (class), 4.75 (instructor) / 5.00

Artificial Intelligence (CS 4710), *University of Virginia*

Fall 2023 | COURSE EVALUATION : 4.33 (class), 4.5 (instructor) / 5.00

Fall 2024 | COURSE EVALUATION : 4.21 (class), 4.22 (instructor) / 5.00

Security and Privacy of Machine Learning (CS 700), *Syracuse University*

Spring 2020 | COURSE EVALUATION : 4.55/5.00 (median 5.00)

Spring 2021 | COURSE EVALUATION : 4.46/5.00 (median 5.00)

Spring 2022 | COURSE EVALUATION : 4.93/5.00 (median 5.00)

Introduction to Artificial Intelligence (CIS 467), *Syracuse University*

Fall 2020 | COURSE EVALUATION : 4.56/5.00 (median 5.00)

Fall 2021 | COURSE EVALUATION : 4.48/5.00 (median 5.00)

Fall 2022 | COURSE EVALUATION : 4.45/5.00 (median 5.00)

Fall 2023 | COURSE EVALUATION : 4.15/5.00 (median 5.00)

Discrete Mathematics (CS 375), *Syracuse University*

Spring 2023 | COURSE EVALUATION : 4.60/5.00 (median 5.00)

MENTORING

Current Students

- **My Dinh** (PhD, UVA CS)

RESEARCH : Deep Learning, Optimization, Fairness.

Spring 2021
- **Vincenzo Di Vito** (PhD, UVA CS)

RESEARCH : Physics Informed Machine Learning.

Fall 2022
- **Saswat Das** (PhD, UVA CS)

RESEARCH : Responsible AI, Differential Privacy.

AWARDS : • **[Best paper award at AAI CoLoRAI Workshop, 2025]** • **[Oral at AAI-25]**

Fall 2023
- **Jacob K. Christopher** (PhD, UVA CS)

RESEARCH : Generative AI for Science, Safety.

AWARDS : • **[Oral at NAACL-25]** • **[Best paper award at UVA LLM workshop, 2024]** • **[Oral at NeurIPS-24 ENLSP workshops]** • **[Oral at NeurIPS-24 AI4Mat workshops]**

Fall 2023
- **Jinhao Liang** (PhD, UVA CS)

RESEARCH : Generative AI, Differentiable Optimization.

AWARDS : • **[Oral at AAI Bridge on ML for OR program, 2025]** • **[Oral at AAI MAPF workshop, 2025]**

Fall 2024
- **Michael Cardei** (PhD, UVA CS)

RESEARCH : LLMs, Generative AI, Safety.

AWARDS : • **NSF GRFP 2025 honorable mention** • **[Oral at NAACL-25]** • **Best paper at LLM workshop, UVA**

Fall 2024

- > **Huu Binh Ta** (PhD, UVA CS)
 RESEARCH : Generative AI, AI for Science.

Fall 2025
- > **Huu Binh Ta** (PhD, UVA CS)
 RESEARCH : Generative AI, LLMs, Privacy.

Fall 2025
- > **Peggy Cui**, (MS, UVA CS)

Spring 2024
- > **Jameson Sandler** (BS, UVA CS)

Fall 2024
- > **Joonhyuk Ko** (BS, UVA CS)
 AWARDS : • **[CRA outstanding undergraduate research honorable mention]** • **[Oral at AAAI-25]**
Fall 2023
- > **Yili Bai** (BS, UVA CS)

Spring 2025
- > **Natalia Wunder** (BS, UVA CS)

Spring 2025
- > **Connor Lewis** (BS, UVA CS)

Spring 2025
- > **Lea Demelius** (VISITING PHD STUDENT, TECHNICAL UNIVERSITY OF GRAZ)

Spring 2025

Graduated Students

- > **James Kotary, PhD** (UVA, CS)
 RESEARCH : Integration of Deep Learning and Optimization.
 DISSERTATION TITLE : Integrating Constrained Optimization with Machine Learning to Enhance Data-Driven Decision Making
 NEXT POSITION : Research Scientist, Pacific Northwest National Laboratory.

Fall 2020 – Fall 2024
- > **Cuong Tran, PhD** (SYRACUSE UNIVERSITY, CISE)
 RESEARCH : Differential Privacy and Fairness.
 AWARDS : • **[Caspar Bowden PET Award (2022)]** • **[Best Paper Award Nomination at NeurIPS-22]**

 DISSERTATION TITLE : The Interplay between Privacy and Fairness in Learning and Decision-making Problems
 NEXT POSITION : Research Scientist, Amazon.

Spring 2020 – Spring 2023
- > **Jacob Kennedy Christopher, MS** (SYRACUSE UNIVERSITY)
 RESEARCH : Differentiable Optimization.
 NEXT POSITION : PhD student at *University of Virginia*.

Spring 2023
- > **Yehya Farhat, MS** (SYRACUSE UNIVERSITY)
 DISSERTATION TITLE : Surrogate ML models for optimization.
 NEXT POSITION : PhD student at *Rice University*.

Fall 2022

Past Students and Visitors

- > **Stefano Zampini**, (VISITING PHD STUDENT, UNIVERSITY OF GENOVA)

Summer 2024
- > **Cuong Tran** (POSTDOC)
 RESEARCH : Data Minimization, Fairness in Large Language Models.

Sep 2023 – Mar 2024
- > **Razan Tajeddine**, (VISITING POSTDOC, U OF HELSINKI)
 RESEARCH : Differential Privacy and Fairness.

Sep 2023 – Mar 2024
- > **St John Grimbly**, (MS VISITING STUDENT, MS AT UNISA)
 NEXT POSITION : PhD student at *University of South Africa*.

Spring 2023
- > **Jayanta Mandi**, PhD at KU Leuven (VISITING STUDENT RESEARCHER)
 RESEARCH : Decision Focused Learning.

Jun 2022 – Sep 2022
- > **Rakshit Naidu**, MS at CMU (INTERN)
 RESEARCH : Privacy and Fairness in ML. NEXT POSITION : PhD student at *Georgia Tech*
Summer 2022

BS and High-School Students

Shujun Xia (BS, City University of Hong Kong, Summer 2024), **Zarreen Reza** (BS, OpenMined, Spring 2024), **Eric Nguyen** (BS, University of Virginia, Fall 2023), **Catherine Smolka** (HS, Deep Run High School, VA, 2023-2024), **Pranav Putta** (BS, GaTech, Summer 2023) [NSF REU], **Winston Tsui** (BS, SU Summer 2023), **Zhongquan Cheng** (BS SU, Summer 2023), **Adya Parida** (BS SU, Fall 2022) [NSF REU], **Deniz Gursoy** (HS, Fayetteville High School, Summer 2022), **Saswat Das** (BS, ITS, Summer 2022), **Utsav Pathak** (BS, Alliance University, Bengaluru, Summer 2022), **Daiwei Shen** (BS, Northwestern, Summer 2022), **Sunisth Kumar** (BS, Bennett University, Summer 2022), **Kyle Beiter** (BS, SU, Summer 2021) [NSF REU], **Shantanu Jhaveri** (BS, USC, Summer 2021) [NSF REU], **Dayong Gu** (BS, SU, Summer 2021), **Guoliang Chen** (BS, SU, Summer 2021), **Pradyumn Yadav** (BS, SU, Summer 2021), **Anudit Nagar** (BS, SU, Summer 2020), **Zhiyan Yao** (BS, SU, Summer 2020), **Zifei Lu** (BS, SU, Summer 2020), **Thomas**

Montfort (BS, SU, Summer 2020), Cong Liu (BS, SU, Summer 2020), Pratik Paranjape, (BS, SU, Summer 2020), Pavan Kumar Vaddineni (BS, SU, Spring 2020), William Kluegel, (BS, NMSU, 2016 – 2018), Lyndon Shi (BS, UMich, 2018), Jiayu Chen (BS, UMich, 2018), Eric Frechette (BS, NMSU, 2016).

PhD Dissertation Committee

> Chen Gong, (UNIVERSITY OF VIRGINIA)	2025
> Galen Harrison, (UNIVERSITY OF VIRGINIA)	2025
> Felipe Toledo, (UNIVERSITY OF VIRGINIA)	2025
> Luca Giuliani, (UNIVERSITY OF BOLOGNA)	2024
> Eleonora Misino, (UNIVERSITY OF BOLOGNA)	2024
> Guangtao Zheng, (UNIVERSITY OF VIRGINIA)	2024
> Dung Nguyen, (UNIVERSITY OF VIRGINIA)	2023
> Elena Long, (UNIVERSITY OF VIRGINIA)	2023
> Khang Tran, (NEW JERSEY INSTITUTE OF TECHNOLOGY)	2023
> Keyu Zhu, (GEORGIA INSTITUTE OF TECHNOLOGY)	2023
> Adrià Fenoy Barcel, (UNIVERSITY OF VERONA)	2023
> Jeroen Fransman, (DELFT UNIVERSITY OF TECHNOLOGY)	2022
> Pegah Hozhabrierdi, (SYRACUSE UNIVERSITY)	2022
> Carlos Pinzon, (ÉCOLE POLYTECHNIQUE)	2022
> Baocheng Geng, (SYRACUSE UNIVERSITY)	2021
> Pranay Sharma, (SYRACUSE UNIVERSITY)	2021

TUTORIALS, SELECTED INVITED TALKS AND MEDIA INTERVIEWS

> Panelist : Combining AI and ORMS for better trustworthy Decision Making. <i>AAAI 2025 Bridge Program</i>	Mar 2025
> Workshop talk : On the Safety of Foundations Models for Autonomous BioLabs. <i>DOE Workshop on Envisioning Frontiers in AI and Computing for Biological Research</i>	Feb 2025
> Keynote talk : Privacy and Fairness issues in Large Language Models. <i>S-HPC Workshop, at Supercomputing 24</i>	Nov 2024
> Invited talk : Unfairness in Constrained Machine Learning. <i>Ohio State University, Department of Computer Science</i>	Nov 2024
> Invited talk : Constraining diffusion models for scientific applications. <i>UVA LLM Workshop</i>	Oct 2024
> Invited talk : Privacy and Fairness in Resource Allocations. <i>2024 Federal Committee on Statistical Methodology (FCSM) Research and Policy Conference</i>	Oct 2024
> Invited talk : Constrained Diffusion for Science and Engineering. <i>Oklahoma State University, School of Industrial Engineering and Management</i>	Oct 2024
> Invited talk : Constrained Diffusion for Science and Engineering. <i>University of Virginia, Department of Systems and Information Engineering</i>	Sep 2024
> Podcast invited speaker : NSI Cyber and Tech Center : "Unleashing Innovation : Navigating Game Changing Technologies" – episode on open source large language model. <i>National Security Institute at George Mason University's Antonin Scalia Law School</i>	Jul 2024
> Invited participant and group lead : US-UK Scientific Forum on Science in the Age of AI. 🔗 <i>National Academy of Sciences</i>	Jun 2024
> Panelist : AI and OR summer school. 🔗 <i>AI-SCORE</i>	May 2024
> Invited talk : Fairness in ML : The curious case of computational shortcuts and hardware choices. 🔗 <i>BuzzRobot</i>	May, 2024
> Invited talk : The Principle of Data Minimization in Machine Learning. <i>Google Research Seminars</i>	Apr, 2024
> Media cover : Building fairness into AI is crucial – and hard to get right. 🔗 <i>The Conversation</i> , 🔗 <i>CHED/QR Radio</i>	Mar 2024

- Invited talk** : Responsible AI in Decision Making Processes.
[Amazon Research Seminars](#)

Feb 2024
- Keynote talk** : Privacy and Fairness in Societal Systems.
[Workshop on the Tradeoffs in Ethical AI](#), INRIA, France

Nov 2023
- Invited talk** : Responsible AI : Privacy and Fairness in Decision Making and Learning Tasks.
[TOC FOR FAIRNESS, Simons Collaboration on the Theory of Algorithmic Fairness](#)

Nov 2023
- Panelist** : Navigating the Frontiers of Artificial Intelligence.
[The Center for Politics, University of Virginia](#)

Oct 2023
- Invited talk** : Optimization and Learning for Science and Engineering.
[Conference on Complex Systems 2023](#)

Oct 2023
- Invited talk** : ML for Optimization and Optimization for ML.
[AI/ML Seminar Series, University of Virginia](#)

Sep 2023
- Keynote talk** : The Unintended Societal Effects of Privacy in Decision and Learning Tasks.
[IJCAI-2023, International Workshop on Mining Actionable Insights from Social Networks](#)

Aug 2023
- Invited talk** : End-to-end Constrained Optimization Learning.
[AC Summer School : Machine Learning for Constraint Programming](#)

Jul 2023
- Invited talk** : Differential Privacy for Power Systems.
[DTU PES Summer School](#)

Jun 2023
- Invited talk** : Optimization Proxies and Differentiable Optimization for Decision Making.
[MARS Seminar, Pacific Northwest National Laboratory \(PNNL\)](#)

Jun 2023
- Invited talk** : Constrained-aware Machine Learning in Energy Systems.
[IEEE Power and Energy Society webinar series](#)

Jun 2023
- Invited talk** : Responsible AI : Privacy and Fairness in Decision and Learning Tasks.
[UC San Diego](#)

Apr 2023
- Panelist** : ChatGPT : Charms and Challenges.
[Syracuse University](#)

Apr 2023
- Invited talk** : Responsible AI : Privacy and Fairness in Decision and Learning Tasks.
[University of Virginia](#)

Mar 2023
- Invited talk** : Constrained-Aware Machine Learning.
[Washington University in St. Louis](#)

Feb 2023
- Invited talk** : Differential Privacy for Power Systems.
[Los Alamos National Lab's 5th Grid Science Winter School and Conference](#)

Jan 2023
- Panelist** : Algorithmic Fairness and its Intersections.
[Thirty-sixth Conference on Neural Information Processing Systems \(NeurIPS\)](#)

Dec 2022
- Tutorial** : End-to-end constrained optimization learning.
[21st International Conference of the Italian Association for Artificial Intelligence \(AlxIA 2022\)](#)

Dec 2022
- Media cover** : How network pruning can skew deep learning models.
[Science Daily](#) [TechXplore](#) [AAAS EurekAlert](#)

Nov 2022
- Invited talk** : Disparate Impacts in Privacy-preserving Machine Learning.
[Washington University in St. Louis](#)

Nov 2022
- Tutorial** : Decision Focused Learning.
[Dagstuhl seminar on Data-Driven Combinatorial Optimisation](#)

Oct 2022
- Media interview** : Privacy and Fairness in AI.
[Syracuse Media Report](#) [NMSU News](#) [Sun News](#)

Jul/Sep 2022
- Media interview** : Google Scholar Research Award.
[Syracuse Media Report](#)

Jun 2022
- Tutorial** : Impacts of Data Privacy and Equity on Public Policy.
[ACM Conference on Fairness, Accountability, and Transparency \(FAccT\)](#)

Jun 2022
- Panelist** : Fostering the Use of AI for Power System Transformation.
[Climate Change AI](#)

Jun 2022
- Media interview** : NSF CAREER Award.
[Syracuse Media Report](#)

Jun 2022

- › **Invited talk** : *End-to-end constrained deep learning optimization.*
Hall of Science (Kantar.com)

Mar 2022
- › **Panelist** : AAAI-22 DC - Career Panel.
[36th AAAI Conference on Artificial Intelligence \(AAAI\)](#)

Feb 2022
- › **Invited talk** : *Privacy-preserving ML and decisions-making : uses and unintended disparate effects.*
[PriSec-ML \(virtual seminars\)](#)

Feb 2022
- › **Media interview** : *AI for Climate Change.*
[RaiNews](#)

Dec 2021
- › **Popular Media Report** : *ISSNAF Young Investigator Award.*
[New York Voice](#) [AISE](#) [Il Mattino](#) [StartupItalia](#) [Zox](#) [PugliaNews](#)

Nov 2021
- › **Invited talk** : *Deep Constraint Learning : Applications and Privacy Considerations.*
[Italian Scientists & Scholars in North America Foundation](#)

Nov 2021
- › **Plenary Keynote talk** : *Constraint-based Differential Privacy.*
[The International Conference on Principle and Practice of Constraint Programming \(CP 2021\)](#),

Oct 2021
- › **Popular Media interview** : *Deep Learning for Engineering Applications.*
[Blum News](#)

Nov 2021
- › **Invited talk** : *Privacy-Preserving Machine Learning : Uses and Unintended Disparate Effect.*
ASPI Seminar (Syracuse University)

Sep 2021
- › **Invited talk** : *Differential Privacy and Machine Learning.*
SUPA ECS workshop for High School Teachers

May 2021
- › **Invited talk** : *Deep Constraint Learning for Critical Engineering Systems.*
[Italian Scientists & Scholars in North America Foundation](#)

Nov 2020
- › **Tutorial** : *Tutorial on Multiagent Optimization.*
[AAAI Conference on Artificial Intelligence \(AAAI 2020\)](#)

Feb 2020
- › **Media cover** : *Multiagent Systems.*
[NetworkDigital360](#)

Feb 2020
- › **Invited talk** : *Privacy-Preserving Artificial Intelligence.*
University of Parma (CS Dept)

Jun 2019
- › **Tutorial** : *Tutorial on Multiagent Optimization for IoT Applications.*
[International Conference on Autonomous Agents and Multiagent Systems \(AAMAS 2019\)](#)

May 2019
- › **Invited talk** : *Differential Privacy for AI Applications*
University of Southern California - Information Sciences Institute.
Michigan State University.

Jan 2019
Feb 2019
- › **Invited talk** : *Privacy Preserving Artificial Intelligence*
Syracuse University.
Drexel University.
University of Arkansas.
Colorado State University.
University of Connecticut.

Feb 2019
Feb 2019
Feb 2019
Mar 2019
Mar 2019
- › **Tutorial** : *Tutorial on Constrained Multi-agent Optimization.*
[AAAI Conference on Artificial Intelligence \(AAAI 2018\)](#)

Feb 2018
- › **Plenary Keynote talk** : *Distributed Constraint Optimization for Smart Energy Networks.*
Italian Conference on Artificial Intelligence (AI*IA 2017)

Nov 2017
- › **Invited talk** : *Distributed Constraint Optimization*
Delft University (TU Delft).
University of Udine.
New Mexico State University.

Apr 2016
Apr 2016
Mar 2016
- › **Invited talk** : *Large Neighboring Search for Distributed Constrained Optimization.*
Ben-Gurion University of the Negev

Mar 2016

RESEARCH GRANTS AND GIFTS

Summary : Total External : \$2,848,003 Total Internal : \$181,000

- › **NVIDIA**, NVIDIA Academic Research Award (GPUs usage) (150,000 hours)
Role : PI

5/25

- LACROSS INSTITUTE, 2025 Fellowship in AI Research (\$100,000 [entire amount for the PI])

Role : PI (with collaborator Max Biggs)

06/25-05/27
- COHERE FOR AI, Cohere For AI Research Grant (LLM credits) (\$20,000)

Role : PI

12/24
- UNIVERSITY OF VIRGINIA (RESEARCH INNOVATION AWARD) (\$60,000)

Project title : *Understanding and Mitigating Privacy Leakage Risks for Large Language Model Applications*

Role : PI (with David Evans as coPI)

8/24-7/25
- NATIONAL SCIENCE FOUNDATION (CISE - RI) (\$600,000 - UVA portion : \$350,000)

Project title : *Collaborative Research : End-to-end Learning of Fair and Explainable Schedules for Court Systems*

Role : Lead PI (with L. Gouldin (SYR) as coPI and W. Yeoh WASHU as collaborative PI)

08/23-07/26
- NATIONAL SCIENCE FOUNDATION (EECS - EPCN) (\$520,000 - UVA portion : \$260,000)

Project title : *Collaborative Research : Physics Informed Real-time Optimal Power Flow*

Role : PI (with Kyri Baker (UC BOULDER) as collaborative PI)

08/23-07/26
- AMAZON RESEARCH AWARDS AWS AI (\$55,000)

Project title : *Toward Understanding the Unintended Disparate Impacts of Private Machine Learning Systems*

Role : PI

01/23
- NATIONAL SCIENCE FOUNDATION (CAREER, CISE - RI) (\$515,403)

Project title : *CAREER : End-to-end Constrained Optimization Learning*

Role : PI

03/22-02/27
- GOOGLE RESEARCH SCHOLAR AWARD (\$60,000)

Project title : *On the Equity of Differentially Private Decision Processes*

Role : PI

06/22
- NATIONAL SCIENCE FOUNDATION (CISE - SATC) (\$500,000 - UVA portion : \$281,000)

Project title : *Collaborative Research : SaTC : Core : Small : Privacy and Fairness in Critical Decision Making*

Role : Lead PI (with P. Van Hentenryck (GEORGIA TECH) as collaborative PI)

10/21-09/25
- NATIONAL SCIENCE FOUNDATION (CISE - RI) (\$500,000 - UVA portion : \$266,000)

Project title : *Collaborative Research : RI : Small : Deep Constrained Learning for Power Systems*

Role : PI (with P. Van Hentenryck (GEORGIA TECH) as collaborative PI)

10/20-09/24
- CUSE PROGRAM (\$21,000)

Project title : *On the Potential Perils of Fairness Algorithms in Decision Making and Learning Tasks*

Role : PI (with S. Soundarajan (SYR) as coPI)

07/21-06/23

TRAVEL AND SERVICE GRANTS

- *Support for Scholarship awards to attend the 2025 AAAI Privacy Preserving AI workshop*

Sponsorship from : Deloitte (\$3000); Google (\$5000); Apple (\$3000); OpenDP (\$500)

Role : PI

03/25
- National Science Foundation (\$50,000)

Project title : *Conference : Artificial Intelligence Summer School for Computer Science and Operations Research Education*

Role : coPI (with Lavanya Marla (UIUC) as PI)

05/24
- Artificial Intelligence Journal (\$4,000)

Project title : *Student Support AU-SCORE 2024*

Role : PI (with Lavanya Marla)

03/24
- Artificial Intelligence Journal (\$15,000)

Project title : *Student Support for AAMAS 2023*

Role : PI (with Ana L. C. Bazzan)

01/23
- National Science Foundation (\$25,000)

Project title : *Travel : Travel : Doctoral Mentoring Consortium at the 22nd International Conference on Autonomous Agents and Multiagent Systems*

Role : PI

05/23
- *Support for Scholarship awards to attend the 2024 AAAI Privacy Preserving AI workshop*

Sponsorship from : Google (\$5000); OpenDP (\$500)

Role : PI

03/24
- *Support for Scholarship awards to attend the 2023 AAAI Privacy Preserving AI workshop*

Sponsorship from : Google (\$2,500)

Role : PI

03/23

SERVICE

CONFERENCE CHAIR

- International Conference on Principles and Practice of Constraint Programming (CP) 2022
with Roie Zivan

WORKSHOP CHAIR

- Sixth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2025
with Juba Ziani, Wanrong Zhang, and Jeremy Seeman
- Algorithmic Fairness through the lens of Metrics and Evaluation (AFME), at NeurIPS 2024
with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- AAAI Workshop on Learnable Optimization (LEARNOPT), at AAAI 2024
with Elias B. Khalil, Pascal Van Hentenryck, Jan Drgona, Draguna Vrabie, and Priya Donti
- Fifth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2024
with Juba Ziani, Christine Task, and Niloofar Mireshghallah
- Algorithmic Fairness through the lens of Time (AFT), at NeurIPS 2023
with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS 2023
with Hau Chan, Jiaoyang Li, Filippo Bistaffa, and James Kotary
- Fourth AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2023
with Catuscia Palamidessi, and Pascal Van Hentenryck
- Algorithmic Fairness through the lens of Causality and Privacy (AFCP), at NeurIPS 2022
with Awa Dieng, Miriam Rateike, and Golnoosh Farnadi
- Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS 2022
with Hau Chan and Jiaoyang Li
- Third AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2022
with Aleksandra Korolova and Pascal Van Hentenryck
- AAAI Workshop on Machine Learning for Operational Research (ML4OR), at AAAI 2022
with Emma Frejinger, Elias Khalil, and Pashootan Vaezipoor
- Second AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2021
with Pascal Van Hentenryck and Richard W. Evans
- Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS), at AAMAS 2021
with Amulya Yadev, Gauthier Picard, and Bryan Wilder
- First AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI), at AAAI 2020
with Pascal Van Hentenryck and Rachel Cummings
- Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS), at AAMAS 2020
with Bryan Wilder and Long Tran-Thanh
- Workshop on Optimization in Multi-Agent Systems (OptMAS), at AAMAS 2019
with Archie Chapman and Long Tran-Thanh
- Workshop on Optimization in Multi-Agent Systems (OptMAS), at FAIM18 2018
with Archie Chapman, Long Tran-Thanh, and Roie Zivan

CONFERENCE ORGANIZING COMMITTEE

- Demo Track Chair : International Joint Conference on Artificial Intelligence (IJCAI) 2023
- Scholarship Chair : International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2023
- Tutorial Chair : International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2022
- Track Chair : International Conference on Principles and Practice of Constraint Programming (CP) 2018 – 2019
- Publicity Chair : International Conference on Logic Programming (ICLP) 2019
- Track Chair : International Symposium on Mathematical Programming (ISMP) 2018

AWARD COMMITTEE

- ACP Early Career Researcher Award committee 2024
- ISSNAF Mario Gerla Young Investigator Award 2023

SERVICE TO JOURNALS

- **Editorial Board Member** : Artificial Intelligence (AIJ) 2024–present
- **Editorial Board Member** : Journal of Artificial Intelligence Research (JAIR) 2025–2028
- **Associate Editor** : IJSE Transactions *Special issue on Federated Learning* 2023
- **Guest Editor** : Theory and Practice of Logic Programming (TPLP) *Past and Present (and Future) of Parallel and Distributed Computation in (Constraint) Logic Programming* 2018

SENIOR AREA CHAIR

- AAI Conference on Artificial Intelligence (AAAI) 2025
- ACM Conference on Fairness, Accountability, and Transparency (FACCT) 2023 – 2025
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2024 – 2025
- International Joint Conference on Artificial Intelligence (IJCAI) 2024 – 2025
- European Conference on Artificial Intelligence (ECAI) 2023 – 2024

AREA CHAIR

- Neural Information Processing Systems (NeurIPS) 2025
- International Conference on Machine Learning (ICML) 2025
- AAI Conference on Artificial Intelligence (AAAI) 2020 – 2024
- International Joint Conference on Artificial Intelligence (IJCAI) 2021 – 2023
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2023
- International Conference on Principles and Practice of Constraint Programming (CP) 2018, 2019, 2022

WORKSHOP/TUTORIAL PROPOSAL REVIEWER

- International Conference on Machine Learning (ICML) 2024 – 2025
- Neural Information Processing Systems (NeurIPS) 2023, 2024
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2022

PROGRAM COMMITTEE

- ACM Computer and Communications Security (CCS) 2025
- Bridge Program on AI and OR, at AAAI 2025
- Neural Information Processing Systems (NeurIPS) 2020 – 2023
- International Conference on Machine Learning (ICML) 2021 – 2024
- International Conference on Learning Representations (ICLR) 2021 – 2025
- Privacy Enhancing Technologies Symposium (PETS) 2021 – 2023
- Electric Power System Research (PSCC) 2022
- International Conference on Logic Programming (ICLP) 2021
- International Conference on Principles and Practice of Constraint Programming (CP) 2016 – 2018, 2021
- International Joint Conference on Artificial Intelligence (IJCAI) 2016 – 2020
- European Conference on Machine Learning (ECML) 2020
- International Symposium on Combinatorial Search (SoCS) 2015 – 2020
- International Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS) 2020
- AAAI Conference on Artificial Intelligence (AAAI) 2018 – 2019
- Italian Conference on Computational Logic (CILC) 2017 – 2019
- Distributed Artificial Intelligence (DAI) 2019
- European Conference on Artificial Intelligence (ECAI) 2016 – 2018
- International Workshop on Optimization in Multi-Agent Systems (OptMAS) 2016 – 2017
- Italian Conference on Artificial Intelligence (AI*IA) 2017

JOURNAL REVIEWER

- Harvard Data Science Review 2024
- INFORMS Journal on Computing 2022, 2023
- Transactions on Machine Learning Research (TMLR) 2022
- Journal of Artificial Intelligence Research (JAIR) 2016 – 2022

› Artificial Intelligence Journal (AIJ)	2016 – 2021
› Journal of Machine Learning Research (JMLR)	2021
› IEEE Transactions on Smart Grid	2019 – 2021
› IEEE Transactions on Power Systems	2020 – 2021
› IEEE Transactions on Dependable and Secure Computing	2020
› IEEE Transactions on Information Forensics & Security	2019 – 2020
› Gates Open Research	2020
› Patterns	2020
› Autonomous Agents and Multi-Agent Systems (JAAMAS)	2014 – 2017, 2019 – 2020, 2023
› Artificial Intelligence Review (AIR)	2016 – 2017
› Fundamenta Informaticae Journal	2016 – 2017
› AI Communications	2017
› Algorithms for Molecular Biology (AMB)	2014

DOCTORAL CONSORTIA MENTORING

› AAAI Conference on Artificial Intelligence (AAAI)	2022
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CONFERENCE/SYMPOSIUM/WORKSHOP REVIEWER

› European Control Conference (ECC)	2021
› AAAI Conference on Artificial Intelligence (AAAI)	2014 – 2017
› International Conference on Autonomous Agents and Multiagent Systems (AAMAS)	2014 – 2016
› International Conference on Principles and Practice of Constraint Programming (CP)	2016 – 2017
› International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)	2016
› International Joint Conference on Artificial Intelligence (IJCAI)	2015
› International Conference on Logic Programming (ICLP)	2015
› International Symposium on Combinatorial Search (SoCS)	2014
› International Workshop on Distributed Constraint Reasoning (DCR)	2014
› EURO-Par Parallel Processing (EUROPAR)	2014
› Principles and Practice of Declarative Programming (PPDP)	2014

PANEL REVIEWER

› The Royal Society, Dorothy Hodgkin Fellowships	2025
› NSF, TIP Panel	2025
› NSF, CISE Panel (×2)	2024
› Austrian Research Promotion Agency (FFG)	2023
› NSF, Eng Panel	2023
› NSF, NRT Panel	2022
› NSF, SaTC Panel	2022
› NSF, CISE Panel	2022
› Israel Science Foundation (IIS) (external reviewer)	2022 – 2023
› Climate Change AI (CCAI) Grant	2022 – 2023
› CUSE Grant, Syracuse University	2020 – 2021
› NSF, CISE RI (external reviewer)	2020

SCHOOL/DEPARTMENT SERVICE (AT UVA)

› Search Committee (Teaching track)	2024 – 2025
› Graduate Program Committee	2023 – 2024
› Advisor ACM SIGAI at UVA	2023 – 2024

SCHOOL/DEPARTMENT SERVICE (AT SU)

› Curriculum Committee	2023 – 2024
› Prepare and Grade Qualifier exam (Programming/Data Structure)	2022 – 2023
› Academic Integrity panelist	2021 – 2022
› Remembrance Scholars Selection Committee	2022