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Dept. of Electrical Engineering & Computer Science  
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## RESEARCH INTERESTS

Artificial Intelligence; Differential Privacy; Optimization; Multiagent Systems.

## PROFESSIONAL EXPERIENCE

Dept. of Electrical Engineering and Computer Science, **Syracuse University**, Syracuse, NY  
*Assistant Professor* Jan 2020

School of Industrial and System Engineering, **Georgia Institute of Technology**, Atlanta, GA  
*Infrastructure and Optimization Laboratory (Pascal Van Hentenryck)*  
*Post-doctoral Researcher* Sep 2018 – Dec 2019

Dept. of Industrial and Operations Engineering, **University of Michigan**, Ann Arbor, MI  
*Infrastructure and Optimization Laboratory (Pascal Van Hentenryck)*  
*Research Fellow* Sep 2016 – Aug 2018

## EDUCATION

*Ph.D. in Computer Science* Jan 2012 – Aug 2016  
New Mexico State University, Las Cruces, NM & University of Udine, Udine, IT (double Ph.D. program)

- Dissertation: *Exploiting the Structure of Distributed Constraint Optimization Problems with applications in Smart Grids*
- Ph.D. advisors: Enrico Pontelli (NMSU) and Agostino Dovier (UniUd)

*M.Sc. in Computer Science* Aug 2010 – Dec 2011  
New Mexico State University, Las Cruces, NM

*B.Sc. (Laurea) in Computer Science* Nov 2005 – Nov 2009  
University of Parma, Parma, IT

## RESEARCH GRANTS

- National Science Foundation. “**Collaborative Research: RI Core: Small: Deep Constrained Learning for Power Systems**”. \$500,000. PIs: Pascal Van Hentenryck, Ferdinando Fioretto (\$250,000). Oct. 2020–Sep. 2023.

## HONORS AND AWARDS

### RESEARCH

- *Best Artificial Intelligence Dissertation Award* 2017  
The Italian Association for Artificial Intelligence (AI\*IA)
- *Most Visionary Paper Award* 2017  
International Conference on Autonomous Agents and Multiagent Systems (AAMAS) Workshop Series

- *3 Years Ph.D. Scholarship Award* (~ \$47,000) 2013–2016  
University of Udine
- *Best Student Paper Award* 2013  
Computational Methods in System Biology (CMSB)
- *Outstanding Research Assistant Award* 2013  
Computer Science, New Mexico State University
- *Outstanding Graduate Assistantship Award* 2012  
New Mexico State University

## TEACHING

- *Outstanding Teaching Assistant Nomination* 2014  
Computer Science, New Mexico State University
- *Outstanding Teaching Assistant Award* 2012  
Computer Science, New Mexico State University

## OTHER AWARDS

Top 5% Graduate Student Honor's Cord (NMSU, 2016), Computer Science Scholarship (\$1500) (NMSU, 2013), Honors Graduate Recognition for Outstanding Academic Success (NMSU, 2012) Erasmus Scholarship (~ \$14,000) (University of Leeds, 2008).

## TRAVEL GRANTS

AAAI'20 Tutorial and Workshops (2020), AAAI'18 Tutorial Grant (2018), CP'16 Travel Support (2016), IJ-CAI'16 Travel Support (2016), AAMAS'16 Travel Support (2016), CP'15 Travel Support (2015), AAMAS'15 Travel Support (2015), AAAI/SIGAI Doctoral Consortium Travel Support (2015), CP'14 Travel Support (2014), CMSB'13 Conference Funding (2013), RR'13 NFS Travel Support (2013), ASNMSU Conference Funding (2012,2013,2014,2015), NMSU Graduate Student Travel Grant (2012).

## PUBLICATIONS

Total citations: 580, h-index: 15 ([Google Scholar](#), October, 2020)

## JOURNAL ARTICLES

- j10. Vladimir Dvorkin, Ferdinando Fioretto, Pascal Van Hentenryck, Pierre Pinson, and Jalal Kazempour. “**Differentially Private Optimal Power Flow for Distribution Grids**” *IEEE Transactions on Power Systems*, (Early Access), 2020.
- j9. Terrence W.K. Mak, Ferdinando Fioretto, Lyndon Shi, and Pascal Van Hentenryck. “**Privacy-Preserving Power System Obfuscation: A Bilevel Optimization Approach**”. *IEEE Transactions on Power Systems*, 35(2), pages 1627–1637, 2020.
- j8. Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “**Differential Privacy for Power Grid Obfuscation**”. *IEEE Transactions on Smart Grid*, 11(2), pages 1356–1366, 2020.
- j7. Ferdinando Fioretto, Pascal Van Hentenryck. “**OptStream: Releasing Time Series Privately**”. *Journal of Artificial Intelligence Research (JAIR)*, 65 pages 423–456, 2019.
- j6. Ferdinando Fioretto, Agostino Dovier, and Enrico Pontelli. “**Distributed Multi-Agent Optimization for Smart Grids and Home Automation**”. *Intelligenza Artificiale (IA)*, 12 (2), pages: 67–87, 2019  
**\*Invited - Best 2017 Thesis in Artificial Intelligence (AI\*IA).**

- j5. Ferdinando Fioretto, Enrico Pontelli, and William Yeoh. “**Distributed Constraint Optimization Problems and Applications: A Survey**”. *Journal of Artificial Intelligence Research (JAIR)*, 61, pages 623–698, 2018.
- j4. Ferdinando Fioretto and William Yeoh. “**AI Buzzwords Explained: Distributed Constraint Optimization Problems**”. *AI Matters*, 3 (4), pages 8–13, 2018.
- j3. Ferdinando Fioretto, Enrico Pontelli, and William Yeoh, and Rina Detcher. “**Accelerating Exact and Approximate Inference for (Distributed) Discrete Optimization with GPUs**”. *Constraints*, 23 (1), pages 1–43, 2018.
- j2. Ferdinando Fioretto, Agostino Dovier, and 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.  $(\alpha\text{-}\beta)$ <sup>1</sup> Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “**A Constraint Solver for Flexible Protein Models**”. *Journal of Artificial Intelligence Research (JAIR)*, 48, pages 953–1000, 2013.

#### BOOK CHAPTERS AND MAGAZINES

- b2. William Kluegel, Muhammad A. Iqbal, Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “**A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs**”. In *Lecture Notes in Computer Science (LCNS)*, LNCS, volume 10643 pages 125–142, Springer, 2017  
\***Most Visionary Paper Award winner (AAMAS workshop series)**.
- b1. Moinul M.P. Chowdhury, Russell Y. Folk, Ferdinando Fioretto, Christopher Kiekintveld, and William Yeoh. “**Investigation of Learning Strategies for the SPOT Broker in Power TAC**”. In *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.

#### CONFERENCES PAPERS (FULL PAPERS) – RIGOROUSLY PEER-REVIEWED

- c33. 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, (to appear), 2020. Acceptance Rate: 19%.
- c32. Ferdinando Fioretto, Lesia Mitridati, and Pascal Van Hentenryck. “**Differential Privacy Stackelberg Games**”. Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 3480–3486, 2020. Acceptance Rate: 12.6%.
- c31. Ferdinando Fioretto, and Pascal Van Hentenryck. “**OptStream: Releasing Time Series Privately**”. Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 5135–5139, 2020. Acceptance Rate: *unknown*.  
\***Invited to the IJCAI journal track**.
- c30. Terrence W.K. Mak, Ferdinando Fioretto, and Pascal Van Hentenryck. “**Privacy-Preserving Obfuscation for Distributed Power Systems**”. Proceedings of the Power Systems Computation Conference (PSCC), 2020. Acceptance Rate:  $\sim 30\%$ .
- c29. Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “**Predicting AC Optimal Power Flows: Combining Deep Learning and Lagrangian Dual Methods**”. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 630–637, 2020. Acceptance Rate: 20.6%.

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<sup>1</sup>Author list is order alphabetically.

- c28. Ferdinando Fioretto, Pascal Van Hentenryck. “**Differential Privacy of Hierarchical Census Data: An Optimization Approach**”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 639–655, 2019. Acceptance Rate: 37%.  
\*Invited to Constraint journal fast track - selected paper.
- c27. Ferdinando Fioretto, Terrence W.K. Mak, Pascal Van Hentenryck. “**Privacy-Preserving Obfuscation of Critical Infrastructure Networks**”. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1086–1092, 2019. Acceptance Rate: 17.9%.
- c26. Ferdinando Fioretto and Pascal Van Hentenryck. “**Privacy-Preserving Federated Data Sharing**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 638–646, 2019. Acceptance Rate: 24%.
- c25. Ferdinando Fioretto, Hong Xu, Sven Koenig, and TK Satish Kumar. “**Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph**”. In *Proceedings of the International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)*, pages 106–122, 2018. Acceptance Rate: 26%.
- c24. Ferdinando Fioretto, Chansoo Lee, and Pascal Van Hentenryck. “**Constrained-based Differential Privacy for Private Mobility**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1405–1413, 2018. Acceptance Rate: 25%.
- c23. Khoi Hoang, Ferdinando Fioretto, William Yeoh, Enrico Pontelli, and Roie Zivan. “**A Large Neighboring Search Schema for Multi-Agent Optimization**”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 688–706, 2018. Acceptance Rate: 33%.
- c22. Ferdinando Fioretto and Pascal Van Hentenryck. “**Constrained-based Differential Privacy: Releasing Optimal Power Flow Benchmarks Privately**”. In *Proceedings of the International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR)*, pages 215–231, 2018. Acceptance Rate: 48%.
- c21. Ferdinando Fioretto, Hong Xu, Sven Koenig, and TK Satish Kumar. “**Constraint Composite Graph-Based Lifted Message Passing for Distributed Constraint Optimization Problems**”. In *International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2018. Acceptance Rate: Unknown.
- c20. Ferdinando Fioretto, William Yeoh, Enrico Pontelli, Ye Ma, and Satishkumar J. Ranade. “**A Distributed Constraint Optimization (DCOP) Approach to the Economic Dispatch with Demand Response**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 999–1007, 2017. Acceptance Rate: 25%.
- c19. Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “**A Multiagent System Approach to Scheduling Devices in Smart Homes**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 981–989, 2017. Acceptance Rate: 25%.
- c18. Khoi Hoang, Ping Hou, Ferdinando Fioretto, Makoto Yokoo, William Yeoh, and Roie Zivan. “**Infinite-Horizon Proactive Dynamic DCOPs**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 212–220, 2017. Acceptance Rate: 25%.
- c17. Atena M. Tabakhi, Tiep Le, Ferdinando Fioretto, and William Yeoh. “**Preference Elicitation for DCOPs**”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 278–296, 2017. Acceptance Rate: 43%.
- c16. Khoi Hoang, Ferdinando Fioretto, Ping Hou, Makoto Yokoo, William Yeoh, and Roie Zivan. “**Proactive Dynamic Distributed Constraint Optimization Problems**”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 597–605, 2016. Acceptance Rate: 25%.

- c15. Tiep Le, Ferdinando Fioretto, William Yeoh, Enrico Pontelli, and Tran Cao Son. “ER-DCOPs: A Framework for Distributed Constraint Optimization Problems With Uncertainty”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 606–614, 2016. Acceptance Rate: 25%.
- c14. Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “Multi-Variable Agent Decompositions for DCOPs”. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 2480–2486, 2016. Acceptance Rate: 26%.
- c13. Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “A Dynamic Programming-Based MCMC Framework for Solving DCOPs with GPUs”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 813–831, 2016. Acceptance Rate: 35%.
- c12. Ferdinando Fioretto, Tiep Le, Enrico Pontelli, William Yeoh, and Tran Cao Son. “Exploiting GPUs in Solving (Distributed) Constraint Optimization Problems with Dynamic Programming”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 121–139, 2015. Acceptance Rate: 49%.
- c11. ( $\alpha$ - $\beta$ ) Federico Campeotto, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “A GPU Implementation of Large Neighborhood Search for Solving Constraint Optimization Problems”. In *Proceedings of the European Conference of Artificial Intelligence (ECAI)*, pages 189–194, 2014. Acceptance Rate: 28%.
- c10. Ferdinando Fioretto, Tiep Le, William Yeoh, Enrico Pontelli, and Tran Cao Son. “Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 307–323, 2014. Acceptance Rate: 50%.
- c9. ( $\alpha$ - $\beta$ ) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “Exploring the Use of GPUs in Constraint Solving”. In *Proceedings of the Practical Aspects of Declarative Languages (PADL)*, pages 152–167, 2014. Acceptance Rate: 55%.
- c8. Ferdinando Fioretto and Enrico Pontelli. “Constraint Programming in Community-based Gene Regulatory Network Inference”. In *Proceedings of the Computational Methods in System Biology (CMSB)*, pages 135–149, 2013. Acceptance Rate: 55%.  
\*Best Student Paper Award winner.
- c7. ( $\alpha$ - $\beta$ ) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “A Filtering Technique for Fragment Assembly-based Proteins Loop Modeling with Constraints”. In *Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, pages 850–866, 2012. Acceptance Rate: 36%.

CONFERENCES PAPERS (SHORT PAPERS) – RIGOROUSLY PEER-REVIEWED

- c6. Ferdinando Fioretto, Federico Campeotto, Agostino Dovier, Enrico Pontelli, and William Yeoh. “Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1835–1836, 2015. Acceptance Rate: 46%.
- c5. Ferdinando Fioretto. “Exploiting the Structure of Distributed Constraint Optimization Problems”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 2007–2008, 2015. Acceptance Rate: Unknown.
- c4. Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “Decomposition Techniques for DCOPs to Exploit Multi-Variable Agents and Multi-Level Parallelism”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1823–1824, 2015. Acceptance Rate: 46%.

- c3. Ferdinando Fioretto. “Exploiting the Structure of Distributed Constraint Optimization Problems”. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, pages 4233–4234, 2015. Acceptance Rate: *Unknown*.
- c2. Ferdinando Fioretto, Federico Campeotto, Luca Da Rin Fioretto, William Yeoh, and Enrico Pontelli “GD-Gibbs: A GPU-based Sampling Algorithm for Solving Distributed Constraint Optimization Problems”. In *Proceedings of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1339–1340, 2014. Acceptance Rate: 46%.
- c1. Michael R. Best, Ferdinando Fioretto, Alessandro Dal Palù, Enrico Pontelli, Tran Son, TuShun R. Powers, and Elba E. Serrano “The role of secondary and tertiary structure prediction in determining the function of novel genes found in *Xenopus Leavis*”. In *Neuroscience 2011*, (518.20/ZZ45). Acceptance Rate: *Unknown*.

## SYMPOSIUM AND WORKSHOP PAPERS

- w16. Ferdinando Fioretto, Cuong Tran, Pascal Van Hentenryck. “Lagrangian Duality for Constrained Deep Learning” In *INFORMS*, 2020.
- w15. Lesia Mitridati, Ferdinando Fioretto, Pascal Van Hentenryck. “Differential Privacy For Stackelberg Games: An Application To Gas And Electricity Markets” In *INFORMS*, 2020.
- w14. Khoi Hoang, Ferdinando Fioretto, William Yeoh, Enrico Pontelli, and Roie Zivan. “A Large Neighboring Search Schema for Multi-Agent Optimization”. In *Proceedings of the International Workshop on Optimisation in Multi-Agent Systems (OPTMAS)*, 2019.
- w13. Ferdinando Fioretto, Hong Xu, Sven Koenig, and TK Satish Kumar. “Solving Multiagent Constraint Optimization Problems on the Constraint Composite Graph”. In *Proceedings of the International Workshop on Optimisation in Multi-Agent Systems (OPTMAS)*, 2018.
- w12. William Kluegel, Muhammad Aamir Iqbal, Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs”. In *Proceedings of the International Workshop on Optimisation in Multi-Agent Systems (OPTMAS)*, 2017.
- w11. Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “A Multiagent System Approach to Scheduling Devices in Smart Homes”. In *Proceedings of the Workshop on AI for Smart Grids and Smart Buildings (AISGSB)*, 2017.
- w10. Atena M. Tabakhi, Ferdinando Fioretto, and William Yeoh. “A Preliminary Study on Preference Elicitation in DCOPs for Scheduling Devices in Smart Buildings”. In *10th Workshop on Advances in Preference Handling (MPREF)*, 2016.
- w9. Porag Chowdhury, Russell Y. Folk, Ferdinando Fioretto, Christopher Kiekintveld, and William Yeoh. “Investigation of Learning Strategies for the SPOT Broker in Power TAC”. In *International Workshop on Agent Mediated Electronic Commerce and Trading Agents Design and Analysis (AMEC/TADA)*, 2016.
- w8. Khoi Hoang, Ferdinando Fioretto, Ping Hou, Makoto Yokoo, William Yeoh, and Roie Zivan. “Proactive Dynamic DCOPs”. In *Proceedings of the Workshop on AI for Smart Grids and Smart Buildings (AISGSB)*, 2016.
- w7. Ferdinando Fioretto, Federico Campeotto, Agostino Dovier, Enrico Pontelli, and William Yeoh. “Large Neighborhood Search with Quality Guarantees for Distributed Constraint Optimization Problems”. In *Proceedings of the International Workshop on Optimization in Multi-Agent Systems (OptMAS)*, 2015.
- w6. Ferdinando Fioretto, Tiep Le, William Yeoh, Enrico Pontelli, and Tran Cao Son. “Improving DPOP with Branch Consistency for Solving Distributed Constraint Optimization Problems”. In *Proceedings of the International Workshop on Optimization in Multi-Agent Systems (OptMAS)*, 2015.

- w5. ( $\alpha$ - $\beta$ ) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “[Experimenting with FIASCO for protein structure prediction](#)”. In *Proceedings of the Workshop on Constraint Based Methods for Bioinformatics (WCB)*, 2014.
- w4. ( $\alpha$ - $\beta$ ) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “[Towards a complete constraint solver on GPU](#)”. In *Proceedings of the Workshop on Parallel Methods for Search & Optimization (ParSearchOpt)*, 2014.
- w3. Ferdinando Fioretto and Enrico Pontelli. “[Community-based Gene Regulatory Network Inference via Constraint Programming](#)”. In *Proceedings of the Workshop on Constraint Based Methods for Bioinformatics (WCB)*, 2013.
- w2. ( $\alpha$ - $\beta$ ) Federico Campeotto, Alessandro Dal Palù, Agostino Dovier, Ferdinando Fioretto, and Enrico Pontelli. “[Protein Loop Modelling via Constraints and Fragment Assembly](#)”. In *Proceedings of the Workshop on Constraint Based Methods for Bioinformatics (WCB)*, 2012.
- w1. ( $\alpha$ - $\beta$ ) Michael R. Best, Kabi Bhattarai, Federico Campeotto, Alessandro Dal Palù, Hung Dang, Agostino Dovier, Ferdinando Fioretto, Federico Fogolari, Tiep Le, and Enrico Pontelli. “[Introducing FIASCO: Fragment-based Interactive Assembly for protein Structure prediction with CONstraints](#)”. In *Proceedings of the Workshop on Constraint Based Methods for Bioinformatics (WCB)*, 2011.

## EDITORIAL ARTICLES

- e2. Ferdinando Fioretto “[AAAI Workshop on Privacy Preserving Artificial Intelligence Report](#)”. *AI Magazine*, 2020
- e1. Ferdinando Fioretto and Enrico Pontelli. “[Past and present \(and future\) of parallel and distributed computation in \(constraint\) logic programming](#)”. *Theory and Practice of Logic Programming (TPLP)*, 18(5-6), pages 722-724, 2018.

## ARCHIVED ARTICLES

- i19. Keyu Zhu, Pascal Van Hentenryck, and Ferdinando Fioretto. “[Bias and Variance of Post-processing in Differential Privacy](#)”. *CoRR abs/2010.04327*, 2020.
- i18. Anudit Nagar, Cuong Tran, and Ferdinando Fioretto. “[A Privacy-Preserving and Accountable Multi-agent Learning Framework](#)”. *submitted*, 2020.
- i17. Cuong Tran, Ferdinando Fioretto, and Pascal Van Hentenryck. “[Differentially Private and Fair Deep Learning: A Lagrangian Dual Approach](#)”. *CoRR abs/2009.12562*, 2020.
- i16. Minas Chatzos, Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “[High-Fidelity Machine Learning Approximations of Large-Scale Optimal Power Flow](#)”. *CoRR abs/2006.16356*, 2020.
- i15. Ferdinando Fioretto, Pascal Van Hentenryck, and Keyu Zhu. “[Differential Privacy of Hierarchical Census Data: An Optimization Approach](#)”. *CoRR abs/2006.15673*, 2020.
- i14. Vladimir Dvorkin, Ferdinando Fioretto, Pascal Van Hentenryck, Jalal Kazempour, and Pierre Pinson. “[Differentially Private Convex Optimization with Feasibility Guarantees](#)”. *CoRR abs/2006.12338*, 2020.
- i13. Vladimir Dvorkin, Ferdinando Fioretto, Pascal Van Hentenryck, Jalal Kazempour, and Pierre Pinson. “[Differentially Private Optimal Power Flow for Distribution Grids](#)”. *CoRR abs/2004.03921*, 2020.
- i12. Ferdinando Fioretto, Lesia Mitridati, and Pascal Van Hentenryck. “[Differential Privacy for Stackelberg Games](#)”. *CoRR abs/2002.00944*, 2020.
- i11. Ferdinando Fioretto, Pascal Van Hentenryck, and Terrence W.K. Mak, Cuong Tran, Federico Baldo, Michele Lombardi. “[A Lagrangian Dual Framework for Deep Neural Networks with Constraints](#)”.

*CoRR abs/2001.09394*, 2020.

- i10. Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “Bilevel Optimization for Differentially Private Optimization”. *CoRR abs/2001.09508*, 2020.
- i9. Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “Predicting AC Optimal Power Flows: Combining Deep Learning and Lagrangian Dual Methods”. *CoRR abs/1909.10461*, 2019.
- i8. Ferdinando Fioretto, Terrence W. K. Mak, and Pascal Van Hentenryck. “Privacy-Preserving Obfuscation of Critical Infrastructure Networks”. *CoRR abs/1905.09778*, 2019.
- i7. Terrence W.K. Mak, Ferdinando Fioretto, and Pascal Van Hentenryck. “Privacy-Preserving Obfuscation for Distributed Power Systems”. *CoRR abs/1910.04250*, 2019.
- i6. Ferdinando Fioretto, Terrence W.K. Mak, and Pascal Van Hentenryck. “Differential Privacy for Power Grid Obfuscation”. *CoRR abs/1901.06949*, 2019.
- i5. Ferdinando Fioretto and Pascal Van Hentenryck. “Differential Private Stream Processing of Energy Consumption”. *CoRR abs/1808.01949*, 2018.
- i4. William Kluegel, Muhammad Aamir Iqbal, Ferdinando Fioretto, William Yeoh, and Enrico Pontelli. “A Realistic Dataset for the Smart Home Device Scheduling Problem for DCOPs”. *CoRR abs/1702.06970*, 2017.
- i3. Ferdinando Fioretto, Agostino Dovier, Enrico Pontelli, William Yeoh, and Roie Zivan. “Solving DCOPs with Distributed Large Neighborhood Search”. *CoRR abs/1702.06915*, 2017.
- i2. Ferdinando Fioretto, Enrico Pontelli, and William Yeoh. “Distributed Constraint Optimization Problems and Applications: A Survey”. *CoRR abs/1602.06347*, 2016.
- i1. Ferdinando Fioretto, Enrico Pontelli, William Yeoh, and Rina Dechter. “Accelerating Exact and Approximate Inference for (Distributed) Discrete Optimization with GPUs”. *CoRR abs/1608.05288*, 2016.

## TEACHING

- CS 467 - Introduction to Artificial Intelligence *Fall 2020*, Syracuse University
- CS 700 - Security and Privacy of Machine Learning *Spring 2020*, Syracuse University
- CS 176/CS 450 - C Programming *Fall 2013*, NMSU

## TEACHING ASSISTANT

- CS 278/CS 465 - Discrete Mathematics (Lab Instructor and TA) *Spring 2014–Spring 2016*, NMSU
- CS 272/CS 463 - Algorithms and Data Structures (Lab Instructor and TA) *Fall 2014*, NMSU
- CS 172 - Java Programming (TA) *Spring 2013*, NMSU
- CS 471 - Programming Languages I (TA) *Fall 2012*, NMSU

## MENTORING

### Ph.D. Students

- Cuong Tran (SU, CISE) *2020 – current*  
Research: Differential Privacy and Machine Learning.
- James Kotary (SU, CISE) *2020 – current*  
Research: Deep Learning and Optimization.
- My Dinh (SU, CISE) *2021*  
Research: Deep Learning and Optimization.



- Jingwen Xu (SU, EECS) 2021  
Research: Differential Privacy.

**M.S. Students**

- Pratik Paranjape (SU, CISE) 2020  
Research: Generating datasets for preference elicitation.  
Current Position: *OthersideAI*
- Pavan Kumar Vaddineni (SU, CISE), 2020  
Research: Explainable and Fair Learning.  
Current Position: *Same*
- William Kluegel (NMSU, CS) 2016 – 2018  
Research: *Optimization and Preferences Elicitation for Smart Home Devices*  
Current Position: *Sandia National Labs*

**B.S. Students**

Anudit Nagar (SU 2020), Zifei Lu (SU 2020), Zhiyan Yao (SU 2020), Thomas Montfort (SU 2020), Cong Liu (SU 2020), Lyndon Shi (UMich, 2018) Jiayu Chen (UMich, 2018) Eric Frechette (NMSU, 2016).

**TUTORIALS AND INVITED TALKS**

- *Tutorial on Multiagent Optimization* (AAAI 2020) Feb 2020
- *CS Seminar*, University of Parma (CS Dept) Jun 2019
- *Tutorial on Multi-agent Optimization for IoT Applications* (AAMAS 2019) May 2019
- *CS Seminar*, University of Connecticut (CS Dept) Mar 2019
- *CS Seminar*, University of New Mexico (CS Dept) Mar 2019
- *CS Seminar*, Michigan State University (ECS Dept) Feb 2019
- *CS Seminar*, Colorado State University (CS Dept) Mar 2019
- *CS Seminar*, Syracuse University (EECS Dept) Feb 2019
- *CS Seminar*, Drexel University (CS Dept) Feb 2019
- *CS Seminar*, University of Arkansas (CS Dept) Feb 2019
- *CS Seminar*, Missouri University of Science and Technology (CS) Feb 2019
- *Lunch and Learn Seminar*, University of Denver (CS Dept) Feb 2019
- *AI Lab Seminar*, University of Michigan (EECS Dept) Aug 2018
- *Invited Presentation*, Privacy in Machine Learning and Artificial Intelligence Workshop (ICML/IJCAI/AAMAS 2018) Jun 2018
- *AI Seminar*, University of Southern California Information Sciences Institute (USC ISI) Mar 2018
- *Invited Seminar*, New Mexico State University (CS Dept) Mar 2018
- *Tutorial on Constrained Multi-agent Optimization* (AAAI 2018) Feb 2018
- *Plenary talk* (AI\*IA 2017) Nov 2017
- *AI Seminar*, Delft University (TU Delft) Apr 2016
- *Research Seminar*, University of Udine Apr 2016
- *CS Colloquium*, New Mexico State University (CS Dept) Mar 2016
- *AI Seminar*, Ben-Gurion University of the Negev (CS Dept) Mar 2016

**SERVICE****CONFERENCE CHAIR**

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

## TRACK CHAIR

- Multiagent and Parallel CP 2018, 2019  
*International Conference on Principles and Practice of Constraint Programming (CP)*  
(with William Yeoh).
- Parallel Processing (Constraint Programming cluster) 2018  
*International Symposium on Mathematical Programming (ISMP)*

## WORKSHOP CHAIR

- *Second AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI-21)* 2021  
(with Pascal Van Hentenryck and Richard W. Evans)
- *Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS* 2021  
(with Amulya Yadev, Gauthier Picard, and Bryan Wilder)
- *First AAAI Workshop on Privacy Preserving Artificial Intelligence (PPAI-20)* 2020  
(with Pascal Van Hentenryck and Rachel Cummings)
- *Workshop on Optimization and Learning in Multi-Agent Systems, at AAMAS* 2020  
(with Bryan Wilder and Long Tran-Thanh)
- *Workshop on Optimization in Multi-Agent Systems, at AAMAS* 2019  
(with Archie Chapman and Long Tran-Thanh)
- *Workshop on Optimization in Multi-Agent Systems, at FAIM18* 2018  
(with Archie Chapman, Long Tran-Thanh, and Roie Zivan)

## PUBLICITY CHAIR

- *International Conference on Logic Programming (ICLP)* 2019

## GUEST EDITOR

- Special Issue of Theory and Practice of Logic Programming (TPLP): Past and Present (and Future) of Parallel and Distributed Computation in (Constraint) Logic Programming 2018  
(with Enrico Pontelli)

## PANEL REVIEWER

- CUSE Grant, Syracuse University 2020
- NSF external reviewer, CISE RI 2020

## AREA CHAIR

- International Joint Conference on Artificial Intelligence (IJCAI) 2021

## SENIOR PROGRAM COMMITTEE

- AAAI Conference on Artificial Intelligence (AAAI) 2020 – 2021
- International Conference on Principles and Practice of Constraint Programming (CP) 2018 – 2019

## PROGRAM COMMITTEE

- AAAI Conference on Artificial Intelligence (AAAI) 2018 – 2019
- Distributed Artificial Intelligence (DAI) 2019
- European Conference on Artificial Intelligence (ECAI) 2016 – 2018
- European Conference on Machine Learning (ECML) 2020
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2017 – 2021
- International Joint Conference on Artificial Intelligence (IJCAI) 2016 – 2020
- International Conference on Principles and Practice of Constraint Programming (CP) 2016 – 2018
- International Symposium on Combinatorial Search (SoCS) 2015 – 2020

- International Workshop on Optimization in Multi-Agent Systems (OptMAS) 2016 – 2017
- International Workshop on Optimization and Learning in Multi-Agent Systems (OptLearnMAS) 2020
- Italian Conference on Computational Logic (CILC) 2017 – 2019
- Italian Conference on Artificial Intelligence (AI\*IA) 2017
- Neural Information Processing Systems (NeurIPS) 2020

## JOURNAL REVIEWER

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

## CONFERENCE/SYMPOSIUM/WORKSHOP REVIEWER

- 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

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