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*Zachary B. Rubinstein, Stephen F. Smith, Laura Barbulescu*

\*\*1105: Fairness and Welfare through Redistribution When Utility Is Transferable  
*Ruggiero Cavallo*

\*\*1113: Learning Games from Videos Guided by Descriptive Complexity  
*Lukasz Kaiser*

\*\*1139: Investigating the Effectiveness of Laplacian-Based Kernels in Hub Reduction  
*Ikumi Suzuki, Kazuo Hara, Masashi Shimbo, Yuji Matsumoto, Marco Saerens*

1146: Multi-Label Learning on Tensor Product Graph  
*Jonathan Q. Jiang*

1153: Search Algorithms for M Best Solutions for Graphical Models  
*Rina Dechter, Natalia Flerova, Radu Marinescu*

1170: Sense Sentiment Similarity: An Analysis  
*Mitra Mohtarami, Hadi Amiri, Man Lan, Thanh Phu Tran, Chew Lim Tan*

1171: Clustering Documents along Multiple Dimensions

*Sajib Dasgupta, Richard M. Golden, Vincent Ng*

1184: Content Recommendation for Attention Management in Unified Social Messaging  
*Hongxia Jin*

\*\*1186: A Bayesian Approach to the Data Description Problem  
*Alireza Ghasemi, Hamid R. Rabiee, Mohammad T. Manzuri, M. H. Rohban*

1189: Learning to Learn: Algorithmic Inspirations from Human Problem Solving  
*Ashish Kapoor, Bongshin Lee, Desney Tan, Eric Horvitz*

\*\*1194: Approximate Policy Iteration with Linear Action Models  
*Hengshuai Yao, Csaba Szepesvári*

From Streamlined Combinatorial Search to Efficient Constructive Procedures  
*Ronan Le Bras, Carla P. Gomes, Bart Selman*

\*\*POMDPs Make Better Hackers: Accounting for Uncertainty in Penetration Testing  
*Carlos Sarraute, Olivier Buffet, Jörg Hoffmann*

## **AI and the Web Track**

\*\*4: Towards Automated Choreographing of Web Services Using Planning  
*Guobing Zou, Yixin Chen, You Xu, Ruoyun Huang, Yang Xiang*

\*\*19: Predictive Mining of Comparable Entities from the Web  
*Myungha Jang, Jin-woo Park, Seung-won Hwang*

24: Online Task Assignment in Crowdsourcing Markets  
*Chien-Ju Ho, Jennifer Wortman Vaughan*

\*\*28: Multinomial Relation Prediction in Social Data: A Dimension Reduction Approach  
*Nozomi Nori, Danushka Bollegala, Hisashi Kashima*

30: Social Context-Aware Trust Network Discovery in Complex Contextual Social Networks  
*Guanfeng Liu, Yan Wang, Mehmet A. Orgun*

\*\*31: A Convex Formulation for Learning from Crowds  
*Hiroshi Kajino, Yuta Tsuboi, Hisashi Kashima*

37: A Data-Driven Approach to Question Subjectivity Identification in Community Question Answering  
*Tom Chao Zhou, Xiance Si, Edward Y. Chang, Irwin King, Michael R. Lyu*

\*\*44: Diagnosing Changes in an Ontology Stream: A DL Reasoning Approach  
*Freddy Lécué*

50: Music-Inspired Texture Representation  
*Ben Horsburgh, Susan Craw, Stewart Massie*

51: Quality Expectation-Variance Tradeoffs in Crowdsourcing Contests  
*Xi Alice Gao, Yoram Bachrach, Peter Key, Thore Graepel*

\*\*53: Building Contextual Anchor Text Representation Using Graph Regularization  
*Na Dai*

56: A Mouse-Trajectory Based Model for Predicting Query-URL Relevance  
*Hengjie Song, Ruoxue Liao, Xiangliang Zhang, Chunyan Miao, Qiang Yang*

57: Discovering Spammers in Social Networks  
*Yin Zhu, Xiao Wang, Erheng Zhong, Nanthan N. Liu, He Li, Qiang Yang*

59: ET-LDA: Joint Topic Modeling for Aligning Events and Their Twitter Feedback  
*Yuheng Hu, Ajita John, Fei Wang, Subbarao Kambhampati*

\*\*64: Ontological Smoothing for Relation Extraction with Minimal Supervision  
*Congle Zhang, Raphael Hoffmann, Daniel S. Weld*

67: Fused Matrix Factorization with Geographical and Social Influence in Location-Based Social Networks  
*Chen Cheng, Haiqin Yang, Irwin King, Michael R. Lyu*

\*\*72: REWOrD: Semantic Relatedness in the Web of Data  
*Giuseppe Pirró*

\*\*82: Improved Convergence of Iterative Ontology Alignment Using Block-Coordinate Descent  
*Uthayasanker Thayasivam, Prashant Doshi*

\*\*87: Adaptive Polling for Information Aggregation  
*Thomas Pfeiffer, Xi Alice Gao, Andrew Mao, Yiling Chen, David G. Rand*

88: BabelRelate! A Joint Multilingual Approach to Computing Semantic Relatedness  
*Roberto Navigli, Simone Paolo Ponzetto*

\*\*92: SPARQL Query Containment Under *SHI* Axioms  
*Melisachew Wudage Chekol, Jérôme Euzenat, Pierre Genevès, Nabil Layaïda*

97: Predicting Disease Transmission from Geo-Tagged Micro-Blog Data  
*Adam Sadilek, Henry Kautz, Vincent Silenzio*

\*\*105: Fine-Grained Entity Recognition  
*Xiao Ling, Daniel S. Weld*

\*\*108: Querying Linked Ontological Data through Distributed Summarization  
*Achille Fokoue, Felipe Meneguzzi, Murat Sensoy, Jeff Z. Pan*

115: Dynamically Switching between Synergistic Workflows for Crowdsourcing  
*Christopher H. Lin, Mausam, Daniel S. Weld*

\*\*118: Combining Hashing and Abstraction in Sparse High Dimensional Feature Spaces  
*Cornelia Caragea, Adrian Silvescu, Prasenjit Mitra*

## **Cognitive Systems Track**

8: Learning Qualitative Models by Demonstration  
*Thomas R. Hinrichs, Kenneth D. Forbus*

\*\*15: Sentic Activation: A Two-Level Affective Common Sense Reasoning Framework  
*Erik Cambria, Daniel Olsher, Kenneth Kwok*

16: A Multi-Domain Evaluation of Scaling in a General Episodic Memory

*Nate Derbinsky, Justin Li, John E. Laird*

**\*\*26:** Lessons Learned from a Rational Reconstruction of Minstrel  
*Brandon Tearse, Peter Mawhorter, Michael Mateas, Noah Wardrip-Fruin*

**28:** Towards a Cognitive System that Can Recognize Spatial Regions Based on Context  
*Nick Hawes, Matthew Klenk, Kate Lockwood, Graham S. Horn, John D. Kelleher*

**\*\*35:** Using Expectations to Drive Cognitive Behavior  
*Unmesh Kurup, Christian Lebiere, Anthony Stentz, Martial Hebert*

**\*\*41:** Functional Interactions between Memory and Recognition Judgments  
*Justin Li, Nate Derbinsky, John Laird*

**\*\*43:** Social Cognition: Memory Decay and Adaptive Information Filtering for Robust Information Maintenance  
*David Reitter, Christian Lebiere*

**47:** A Grounded Cognitive Model for Metaphor Acquisition  
*Sushobhan Nayak, Amitabha Mukerjee*

**48:** Crossing Boundaries: Multi-Level Introspection in a Complex Robotic Architecture for Automatic Performance Improvements  
*Evan Krause, Paul Schermerhorn, Matthias Scheutz*

**\*\*57:** Discovering Constraints for Inductive Process Modeling  
*Ljupco Todorovski, Will Bridewell, Pat Langley*

## **Computational Sustainability and AI Track**

**\*\*4:** Prediction and Fault Detection of Environmental Signals with Uncharacterised Faults  
*Michael A. Osborne, Roman Garnett, Kevin Swersky, Nando de Freitas*

**\*\*12:** The Automated Vacuum Waste Collection Optimization Problem  
*Ramón Béjar, Cèsar Fernández, Carles Mateu, Felip Manyà, Francina Sole-Mauri, David Vidal*

**\*\*13:** Sensing the Air We Breathe - The OpenSense Zurich Dataset  
*Jason Jingshi Li, Boi Faltings, Olga Saukh, David Hasenfratz, Jan Beutel*

**\*\*22:** Learning Non-Stationary Space-Time Models for Environmental Monitoring  
*Sahil Garg, Amarjeet Singh, Fabio Ramos*

**23:** Non-Intrusive Load Monitoring Using Prior Models of General Appliance Types  
*Oliver Parson, Siddhartha Ghosh, Mark Weal, Alex Rogers*

**34:** Patrol Strategies to Maximize Pristine Forest Area  
*Matthew P. Johnson, Fei Fang, Milind Tambe*

**\*\*38:** Pre-Symptomatic Prediction of Plant Drought Stress Using Dirichlet-Aggregation Regression on Hyperspectral Images  
*Kristian Kersting, Zhao Xu, Mirwaes Wahabzada, Christian Bauckhage, Christian Thureau, Christoph Roemer, Agim Ballvora, Uwe Rascher, Jens Leon, Lutz Pluemer*

**\*\*39:** An Intelligent Battery Controller Using Bias-Corrected Q-learning  
*Donghun Lee, Warren B. Powell*

40: Coupling Spatiotemporal Disease Modeling with Diagnosis  
*Martin Mubangizi, Catherine Ikae, Athina Spiliopoulou, John A. Quinn*

\*\*45: Robust Cuts Over Time: Combatting the Spread of Invasive Species with Unreliable Biological Control  
*Gwen Spencer*

\*\*46: Cooperative Virtual Power Plant Formation Using Scoring Rules  
*Valentin Robu, Ramachandra Kota, Georgios Chalkiadakis, Alex Rogers, Nicholas R. Jennings*

48: Lagrangian Relaxation Techniques for Scalable Spatial Conservation Planning  
*Akshat Kumar, Xiaojian Wu, Shlomo Zilberstein*

53: MOMDPs: A Solution for Modelling Adaptive Management Problems  
*Iadine Chadès, Josie Carwardine, Tara G. Martin, Samuel Nicol, Régis Sabbadin, Olivier Buffet*

\*\*54: Scheduling Conservation Designs via Network Cascade Optimization  
*Shan Xue, Alan Fern, Daniel Sheldon*

56: A Novel and Scalable Spatio-Temporal Technique for Ocean Eddy Monitoring  
*James H. Faghmous, Yashu Chamber, Shyam Boriah, Stefan Liess, Vipin Kumar, Frode Vikebø, Michel dos Santos Mesquita*

57: Global Climate Model Tracking Using Geospatial Neighborhoods  
*Scott McQuade, Claire Monteleoni*

\*\*62: An Efficient Simulation-Based Approach to Ambulance Fleet Allocation and Dynamic Redeployment  
*Yisong Yue, Lavanya Marla, Ramayya Krishnan*

64: Fine-Grained Photovoltaic Output Prediction Using a Bayesian Ensemble  
*Prithwish Chakraborty, Manish Marwah, Martin Arlitt, Naren Ramakrishnan*

\*\*69: Factored Models for Multiscale Decision-Making in Smart Grid Customers  
*Prashant P. Reddy, Manuela M. Veloso*

\*\*71: Improving Hybrid Vehicle Fuel Efficiency Using Inverse Reinforcement Learning  
*Adam Vogel, Deepak Ramachandran, Rakesh Gupta, Antoine Raux*

\*\*73: Sustaining Economic Exploitation of Complex Ecosystems in Computational Models of Coupled Human-Natural Networks  
*Neo D. Martinez, Perrine Tonin, Barbara Bauer, Rosalyn C. Rael, Rahul Singh, Sangyuk Yoon, Ilmi Yoon, Jennifer A. Dunne*

## **Robotics Track**

\*\*7: Repeated Sequential Auctions with Dynamic Task Clusters  
*Bradford Heap, Maurice Pagnucco*

\*\*10: Occupancy Grid Models for Robot Mapping in Changing Environments  
*Daniel Meyer-Delius, Maximilian Beinhofer, Wolfram Burgard*

\*\*11: Automatic Targetless Extrinsic Calibration of a 3D Lidar and Camera by Maximizing Mutual Information  
*Gaurav Pandey, James R. McBride, Silvio Savarese, Ryan M. Eustice*



14: Coordinated Multi-Robot Exploration under Communication Constraints Using Decentralized Markov Decision Processes

*Laëtitia Matignon, Laurent Jeanpierre, Abdel-illah Mouaddib*

\*\*19: Parsing Outdoor Scenes from Streamed 3D Laser Data Using Online Clustering and Incremental Belief Updates

*Rudolph Triebel, Rohan Paul, Daniela Rus, Paul Newman*

22: Efficient Optimization of Control Libraries

*Debadeepta Dey, Tian Yu Liu, Boris Sofman, J. Andrew Bagnell*

\*\*31: Visibility Induction for Discretized Pursuit-Evasion Games

*Ahmed Abdelkader, Hazem El-Alfy*

\*\*32: Searching for Optimal Off-Line Exploration Paths in Grid Environments for a Robot with Limited Visibility

*Alberto Quattrini Li, Francesco Amigoni, Nicola Basilico*

\*\*35: Visual Saliency Estimation through Manifold Learning

*Richard M. Jiang, Danny Crookes*

\*\*51: Mobile Robot Planning to Seek Help with Spatially-Situated Tasks

*Stephanie Rosenthal, Manuela Veloso*

54: Using the Web to Interactively Learn to Find Objects

*Mehdi Samadi, Thomas Kollar, Manuela Veloso*

\*\*56: Symmetric Rendezvous in Planar Environments with and without Obstacles

*Deniz Ozsoyeller, Volkan Isler, Andrew Beveridge*

59: Improving Request Compliance through Robot Affect

*Lilia Moshkina*

64: Model Learning and Real-Time Tracking Using Multi-Resolution Surfel Maps

*Jörg Stückler, Sven Behnke*