

AAAI-16/IAAI-16/EAAI-16 Program Schedule

Friday – Saturday, February 12-13

The **Tutorial Forum, Workshop Program, and Doctoral Consortium** will be held on Friday and Saturday, February 12-13. Schedules for these programs are posted separately, and will be included in the Guidebook app and online program.

Room assignments are available in the final program.

Friday, February 12

6:30–7:30

AAAI Student Welcome Reception

All students are welcome!

Saturday, February 13

9:00–4:00

AAAI-16 Open House

Featuring invited talks, poster presentations, and robotic exhibits. A full schedule is available in the program.

The Sixth Symposium on Educational Advances in Artificial Intelligence

(Continues on Sunday, February 14)

9:40–9:40

EAAI-16 Welcome

Todd Neller and Sven Koenig

9:40–10:40

EAAI-16 Invited Talk

Peter Norvig

10:40–11:00

EAAI-16 Coffee Break

11:00–12:00

EAAI-16 Accepted Papers I (20 minutes each)

The Turing Test in the Classroom

Lisa Torrey, Karen Johnson, Sid Sondergard, Pedro Ponce, Laura Desmond

Design of an Online Course on Knowledge-Based AI

Ashok K. Goel, David A. Joyner

From the Lab to the Classroom and Beyond: Extending a Game-Based Research Platform for Teaching AI to Diverse Audiences

Nicole Sintov, Debarun Kar, Thanh Nguyen, Fei Fang, Kevin Hoffman, Arnaud Lyet, Milind Tambe

12:00–1:30

EAAI-16 Lunch Break

1:30–2:30

EAAI-16 Model AI Assignments I (20 minutes each)

A Simple Genetic Algorithm

James Marshall

A Genetic Algorithm for Robby the Robot
James Marshall

An Introduction to k-Means Clustering
Todd W. Neller and Laura E. Brown

2:30-3:30

EAAI-16 Poker Squares: Day 1 (15 minutes each)

Introduction
Todd Neller

Using Domain Knowledge to Improve Monte-Carlo Tree Search Performance in Parameterized Poker Squares
Robert Arrington, Clay Langley, Steven Bogaerts

BeeMo, a Monte Carlo Simulation Agent for Playing Parameterized Poker Squares
Karo Castro-Wunsch, William Maga, Calin Anton

Learning and Using Hand Abstraction Values for Parameterized Poker Squares
Todd W. Neller, Colin M. Messinger, Zuozhi Yang

3:30-4:00

EAAI-16 Coffee Break

4:00-5:00

EAAI-16 Model AI Assignments II (20 minutes each)

Python Console-Animation Suite
Lisa Torrey

An Introduction to Classification: A CS2 Object-Oriented Programming Project
Nate Derbinsky

Adventures with Prolog: Entering the Dungeon Lord's Lair
Thomas E. Allen, Andrew A. Ward, Judy Goldsmith, and Nahom Muluneh

5:30-6:30

AAAI-16 Research Speed Dating

6:00-7:30

**AAAI-16 Opening Reception
Hyatt Regency Phoenix**

Sunday, February 14

8:30-8:55 (*Sunday, 2/14*)

Welcome and Opening Remarks, AAAI Organizational Awards/Honors, Senior Member Blue Sky Awards

9:00-9:50 (*Sunday, 2/14*)

**AAAI Presidential Address: Thomas G. Dietterich
*Steps Toward Robust Artificial Intelligence***

9:50-10:00

Transition

10:00-11:00 (*Sunday, 2/14*)

AAAI-16 Technical Sessions

10:00-11:00 (Sunday, 2/14)

ML1: Learning Preferences and Behavior

Oral Presentations

1214

Learning the Preferences of Ignorant, Inconsistent Agents
Owain Evans, Andreas Stuhlmüller, Noah D. Goodman

1812

Fusing Social Networks with Deep Learning for Volunteerism Tendency Prediction
Yongpo Jia, Xueming Song, Jingbo Zhou, Li Liu, Liqiang Nie, David S. Rosenblum

1007

Minimizing User Involvement for Learning Human Mobility Patterns from Location Traces
Basma Alharbi, Abdulhakim Qahtan, Xiangliang Zhang

Poster Spotlight Talks

561

Predicting Online Protest Participation of Social Media Users
Suhas Ranganath, Fred Morstatter, Xia Hu, Jiliang Tang, Suhang Wang, Huan Liu

106

Fortune Teller: Predicting Your Career Path
Ye Liu, Luming Zhang, Liqiang Nie, Yan Yan, David S. Rosenblum

1071

Predicting the Next Location: A Recurrent Model with Spatial and Temporal Contexts
Qiang Liu, Shu Wu, Liang Wang, Tieniu Tan

10:00-11:00 (Sunday, 2/14)

ML2: Machine Learning for Language and Speech

Oral Presentations

1203

Look, Listen and Learn - A Multimodal LSTM for Speaker Identification
Jimmy Ren, Yongtao Hu, Yu-Wing Tai, Chuan Wang, Li Xu, Wenxiu Sun, Qiong Yan

632

Agreement on Target-Bidirectional LSTMs for Sequence-to-Sequence Learning
Lemao Liu, Andrew Finch, Masao Utiyama, Eiichiro Sumita

2111

Discovering User Attribute Stylistic Differences via Paraphrasing
Daniel Preotiuc-Pietro, Wei Xu, Lyle Ungar

Poster Spotlight Talks

1900

Non-Linear Similarity Learning for Compositionality
Masashi Tsubaki, Kevin Duh, Masashi Shimbo, Yuji Matsumoto

1801

Age of Exposure: A Model of Word Learning
Mihai Dascalu, Danielle S. McNamara, Scott Crossley, Stefan Trausan-Matu

2027

Unsupervised Lexical Simplification for Non-Native Speakers
Gustavo H. Paetzold, Lucia Specia

10:00-11:00 (*Sunday, 2/14*)

Search1: Constraints

Oral Presentations

831

Steiner Tree Problems with Side Constraints Using Constraint Programming

Diego de Uña, Graeme Gange, Peter Schachte, Peter J. Stuckey

1719

Breaking More Composition Symmetries Using Search Heuristics

Jimmy H. M. Lee, Zichen Zhu

1105

The Meta-Problem for Conservative Mal'tsev Constraints

Clement Carbonnel

Poster Spotlight Talks

2234

Counting-Based Search for Constraint Optimization Problems

Gilles Pesant

1641

CAPReS: Context Aware Persona Based Recommendation for Shoppers

Joydeep Banerjee, Gurulingesh Raravi, Manoj Gupta, Sindhu K. Ernala, Shruti Kunde, Koustuv Dasgupta

41

Multi-Variable Agents Decomposition for DCOPs

Ferdinando Fioretto, William Yeoh, Enrico Pontelli

10:00-11:00 (*Sunday, 2/14*)

VIS1: Video/Image Features

Oral Presentations

452

Labeling the Features, Not the Samples: Efficient Video Classification with Minimal Supervision

Marius Leordeanu, Alexandra Radu, Shumeet Baluja, Rahul Sukthankar

1476

Submodular Asymmetric Feature Selection in Cascade Object Detection

Baosheng Yu, Meng Fang, Dacheng Tao, Jie Yin

607

Group Cost-Sensitive Boosting for Multi-Resolution Pedestrian Detection

Chao Zhu, Yuxin Peng

Poster Spotlight Talks

480

Unsupervised Co-activity Detection from Multiple Videos Using Absorbing Markov Chain

Donghun Yeo, Bohyung Han, Joon Hee Han

310

MC-HOG Correlation Tracking with Saliency Proposal

Guibo Zhu, Jinqiao Wang, Yi Wu, Xiaoyu Zhang, Hanqing Lu

8

Structured Output Prediction for Semantic Perception in Autonomous Vehicles

Rein Houthoofd, Cedric De Boom, Stijn Verstichel, Femke Ongenae, Filip De Turck

10:00-11:00 (*Sunday, 2/14*)

NLP1: Text Classification

Oral Presentations

2304

Robust Text Classification in the Presence of Confounding Bias
Virgile Landeiro, Aron Culotta

2077

Text Classification with Heterogeneous Information Network Kernels
Chenguang Wang, Yangqiu Song, Haoran Li, Ming Zhang, Jiawei Han

390

Text Matching as Image Recognition
Liang Pang, Yanyan Lan, Jiafeng Guo, Jun Xu, Shengxian Wan, Xueqi Cheng

Poster Spotlight Talks

931

Personalized Microblog Sentiment Classification via Multi-Task Learning
Fangzhao Wu, Yongfeng Huang

594

Semi-Supervised Multinomial Naive Bayes for Text Classification by Leveraging Word-Level Statistical Constraint
Li Zhao, Minlie Huang, Ziyu Yao, Rongwei Su, Yingying Jiang, Xiaoyan Zhu

185

Gated Neural Networks for Targeted Sentiment Analysis
Meishan Zhang, Yue Zhang, Duy-Tin Vo

10:00-11:00 (*Sunday, 2/14*)

GTEP1: Markets

Oral Presentations

1291

Fast Optimal Clearing of Capped-Chain Barter Exchanges
Benjamin Plaut, John P. Dickerson, Tuomas Sandholm

690

Learning Market Parameters Using Aggregate Demand Queries
Xiaohui Bei, Wei Chen, Jugal Garg, Martin Hoefer, Xiaoming Sun

1690

Assignment and Pricing in Roommate Market
Pak Hay Chan, Xin Huang, Zhengyang Liu, Chihao Zhang, Shengyu Zhang

Poster Spotlight Talks

2177

Incentives for Strategic Behavior in Fisher Market Games
Bo Tang, Xiaotie Deng, Ning Chen, Hongyang Zhang

777

Optimizing Trading Assignments in Water Right Markets
Yicheng Liu, Pingzhong Tang, Tingting Xu, Hang Zheng

2573

Autonomous Electricity Trading Using Time-Of-Use Tariffs in a Competitive Market
Daniel Urieli, Peter Stone

10:00-11:00 (*Sunday, 2/14*)

AIW1: Ontologies and Knowledge Graphs

Oral Presentations

1170

Ontology-Mediated Queries for NOSQL Databases
Marie-Laure Mugnier, Marie-Christine Rousset, Federico Ulliana

2285

Column-Oriented Datalog Materialization for Large Knowledge Graphs
Jacopo Urbani, Cerial Jacobs, Markus Krötzsch

369

Fine-Grained Semantic Conceptualization of FrameNet
Jin-woo Park, Seung-won Hwang, Haixun Wang

Poster Spotlight Talks

566

Knowledge Graph Completion with Adaptive Sparse Transfer Matrix
Guoliang Ji, Kang Liu, Shizhu He, Jun Zhao

1742

Locally Adaptive Translation for Knowledge Graph Embedding
Yantao Jia, Yuanzhuo Wang, Hailun Lin, Xiaolong Jin, Xueqi Cheng

1621

Representation Learning of Knowledge Graphs with Entity Descriptions
Ruobing Xie, Zhiyuan Liu, Jia Jia, Huanbo Luan, Maosong Sun

10:00-11:00 (*Sunday, 2/14*)

IAAI-16: Machine Learning/Data Mining I: Tourism and Climate

Wikipedia in the Tourism Industry: Forecasting Demand and Modeling Usage Behavior
Pejman Khadivi, Naren Ramakrishnan

A Hidden Markov Model Approach to Infer Timescales for High-Resolution Climate Archives
Mai Winstrup

10:00-11:00 (*Sunday, 2/14*)

EAAI-16: Accepted Papers II (20 minutes each)

Creating Interactive and Visual Educational Resources for AI
Sameer Singh, Sebastian Riedel

Teaching Big Data Analytics Skills with Intelligent Workflow Systems
Yolanda Gil

Conceptualizing Curse of Dimensionality with Parallel Coordinates
G Devi, Charu Chauhan, Sutanu Chakraborti

11:00-11:30

Coffee Break

11:30-12:30 (*Sunday, 2/14*)

AAAI-16 Technical Sessions

CP1: Classic Paper Award Presentations (11:30-12:06)

The Interactive Museum Tour-Guide Robot

Wolfram Burgard (speaker), Armin B. Cremers, Dieter Fox, Dirk Hähnel, Gerhard Lakemeyer, Dirk Schulz, Walter Steiner, Sebastian Thrun

Boosting Combinatorial Search through Randomization

Carla P. Gomes (speaker), Bart Selman, Henry Kautz

11:30-12:30 (*Sunday, 2/14*)

ML3: Deep Learning Applications

Oral Presentations

191

Deep Learning for Algorithm Portfolios

Andrea Loreggia, Yuri Malitsky, Horst Samulowitz, Vijay Saraswat

400

Poker-CNN: A Pattern Learning Strategy for Making Draws and Bets in Poker Games Using Convolutional Networks

Nikolai Yakovenko, Liangliang Cao, Colin Raffel, James Fan

1217

Deep Tracking: Seeing Beyond Seeing Using Recurrent Neural Networks

Peter Ondruska, Ingmar Posner

Poster Spotlight Talks

1333

Learning Deep Representation from Big and Heterogeneous Data for Traffic Accident Inference

Qunjun Chen, Xuan Song, Harutoshi Yamada, Ryosuke Shibasaki

2500

Face Video Retrieval via Deep Learning of Binary Hash Representations

Zhen Dong, Su Jia, Tianfu Wu, Mingtao Pei

11:30-12:30 (*Sunday, 2/14*)

Search2: Search

Oral Presentations

2336

On the Completeness of Best-First Search Variants that Use Random Exploration

Richard Valenzano, Fan Xie

627

Bidirectional Search That Is Guaranteed to Meet in the Middle

Robert C. Holte, Ariel Felner, Guni Sharon, Nathan R. Sturtevant

2528

Look-Ahead with Mini-Bucket Heuristics for MPE

Rina Dechter, Kalev Kask, William Lam, Javier Larrosa

Poster Spotlight Talks

2167

A Combinatorial Search Perspective on Diverse Solution Generation

Satya Gautam Vadlamudi, Subbarao Kambhampati

190

Two Efficient Local Search Algorithms for Maximum Weight Clique Problem
Yiyuan Wang, Shaowei Cai, Minghao Yin

1480

Combining Bounding Boxes and JPS to Prune Grid Pathfinding
Steve Rabin, Nathan R. Sturtevant

11:30-12:30 (*Sunday, 2/14*)

VIS2: Video Analysis

Oral Presentations

895

Zero-Shot Event Detection by Multimodal Distributional Semantic Embedding of Videos
Mohamed Elhoseiny, Jingen Liu, Hui Cheng, Harpreet Sawhney, Ahmed Elgammal

2507

Dynamic Concept Composition for Zero-Example Event Detection
Xiaojun Chang, Yi Yang, Guodong Long, Chengqi Zhang, Alexander G. Hauptmann

536

Robust Complex Behaviour Modeling at 90Hz
Xiangyu Kong, Yizhou Wang, Tao Xiang

Poster Spotlight Talks

675

Diversified Dynamical Gaussian Process Latent Variable Model for Video Repair
Hao Xiong, Tongliang Liu, Dacheng Tao

996

Concepts Not Alone: Exploring Pairwise Relationships for Zero-Shot Video Activity Recognition
Chuang Gan, Ming Lin, Yi Yang, Gerard de Melo, Alexander G. Hauptmann

30

Multi-View 3D Human Tracking in Crowded Scenes
Xiaobai Liu

11:30-12:30 (*Sunday, 2/14*)

NLP2: Features and Event Interpretation

Oral Presentations

1361

Exploring Multiple Feature Spaces for Novel Entity Discovery
Zhaohui Wu, Yang Song, C. Lee Giles

490

Improving Twitter Sentiment Classification Using Topic-Enriched Multi-Prototype Word Embeddings
Yafeng Ren, Yue Zhang, Meishan Zhang, Donghong Ji

1849

Reading the Videos: Temporal Labeling for Crowdsourced Time-Sync Videos Based on Semantic Embedding
Guangyi Lv, Tong Xu, Enhong Chen, Qi Liu, Yi Zheng

Poster Spotlight Talks

2630

Acquiring Knowledge of Affective Events from Blogs Using Label Propagation

Haibo Ding, Ellen Riloff

601

A Probabilistic Soft Logic Based Approach to Exploiting Latent and Global Information in Event Classification
Shulin Liu, Kang Liu, Shizhu He, Jun Zhao

609

Identifying Sentiment Words Using an Optimization Model with L^1 Regularization
Zhi-Hong Deng, Hongliang Yu, Yunlun Yang

11:30-12:30 (Sunday, 2/14)

GTEP2: Mechanism Design

Oral Presentations

457

Strategyproof Peer Selection: Mechanisms, Analyses, and Experiments
Haris Aziz, Omer Lev, Nicholas Mattei, Jeffrey S. Rosenschein, Toby Walsh

2599

A Geometric Method to Construct Minimal Peer Prediction Mechanisms
Rafael Frongillo, Jens Witkowski

2016

Maximizing Revenue with Limited Correlation: The Cost of Ex-Post Incentive Compatibility
Michael Albert, Vincent Conitzer, Giuseppe Lopomo

Poster Spotlight Talks

1509

False-Name-Proof Locations of Two Facilities: Economic and Algorithmic Approaches
Akihisa Sonoda, Taiki Todo, Makoto Yokoo

1818

Ad Auctions and Cascade Model: GSP Inefficiency and Algorithms
Gabriele Farina, Nicola Gatti

2644

Is It Harmful When Advisors Only Pretend to Be Honest?
Dongxia Wang, Tim Muller, Jie Zhang, Yang Liu

11:30-12:30 (Sunday, 2/14)

AIW2: Knowledge Acquisition from the Web

Oral Presentations

1566

Global Distant Supervision for Relation Extraction
Xianpei Han, Le Sun

1758

Commonsense in Parts: Mining Part-Whole Relations from the Web and Image Tags
Niket Tandon, Charles Hariman, Jacopo Urbani, Anna Rohrbach, Marcus Rohrbach, Gerhard Weikum

2080

Are Elephants Bigger than Butterflies? Reasoning about Sizes of Objects
Hessam Bagherinezhad, Hannaneh Hajishirzi, Yejin Choi, Ali Farhadi

Poster Spotlight Talks

380

Improved Neural Machine Translation with SMT Features
Wei He, Zhongjun He, Hua Wu, Haifeng Wang

1343

To Swap or Not to Swap? Exploiting Dependency Word Pairs for Reordering in Statistical Machine Translation
Christian Hadiwinoto, Yang Liu, Hwee Tou Ng

2456

Cross-Lingual Taxonomy Alignment with Bilingual Biterm Topic Model
Tianxing Wu, Guilin Qi, Haofen Wang, Kang Xu, Xuan Cui

11:30-12:30 (*Sunday, 2/14*)

ROB1: RSS Invited, Robotics Fellowship

RSS Invited Talks

DeepMPC: Learning Deep Latent Features for Model Predictive Control
Ian Lenz, Ross Knepper, Ashutosh Saxena

Robust Trajectory Optimization: A Cooperative Stochastic Game Theoretic Approach
Yunpeng Pan, Kaivalya Bakshi, Evangelos Theodorou

Dealing with Difficult Instances of Object Rearrangement
Athanasios Krontiris, Kostas Bekris

Robotics Fellowship Talks

Rock, Paper, Scissors: What Can I Use in Place of a Hammer?
Madhura Thosar

Information-Driven Exploration to Complete and Refine Spatio-Temporal Maps
João Machado Santos

11:30-12:00 (*Sunday, 2/14*)

IAAI-16: Application I: Software Diagnosis and Testing

Automated Regression Testing Using Constraint Programming
Arnaud Gotlieb, Mats Carlsson, Marius Liaeen, Dusica Marijan, Alexandre Petillon

11:30-12:30 (*Sunday, 2/14*)

EAAI-16: Modern AI Course Panel: Day 2

Panelists: Michael Wollowski, Robert Selkowitz, Laura Brown, Ashok Goel, George Luger, Jim Marshall, Andrew Neel, Todd Neller and Peter Norvig

12:30-2:00

Lunch Break (Lunch with a Fellow-offsite)

2:00-3:30 (*Sunday, 2/14*)

AAAI-16 Technical Sessions

2:00-3:30 (*Sunday, 2/14*)

ML4: Graphical Models

Oral Presentations

534

On Learning Causal Models from Relational Data
Sanghack Lee, Vasant Honavar

1226

Approximate Probabilistic Inference via Word-Level Counting
Supratik Chakraborty, Kuldeep S. Meel, Rakesh Mistry, Moshe Y. Vardi

1210
Learning Ensembles of Cutset Networks
Tahrima Rahman, Vibhav Gogate

313
Learning Bayesian Networks with Bounded Tree-Width via Guided Search
Siqi Nie, Cassio P. de Campos, Qiang Ji

Poster Spotlight Talks

2297
Scalable Training of Markov Logic Networks Using Approximate Counting
Somdeb Sarkhel, Deepak Venugopal, Tuan Anh Pham, Parag Singla, Vibhav Gogate

2139
From Exact to Anytime Solutions for Marginal Map
Junkyu Lee, Radu Marinescu, Rina Dechter, Alexander Ihler

2427
Closing the Gap between Short and Long XORs for Model Counting
Shengjia Zhao, Sorathan Chaturapruek, Ashish Sabharwal, Stefano Ermon

2240
Decoding Hidden Markov Models Faster than Viterbi Via Online Matrix-Vector (max, +)-Multiplication
Massimo Cairo, Gabriele Farina, Romeo Rizzi

1322
Scaling Relational Inference Using Proofs and Refutations
Ravi Mangal, Xin Zhang, Aditya Kamath, Aditya V. Nori, Mayur Naik

87
Deep Neural Networks for Learning Graph Representations
Shaosheng Cao, Wei Lu, Qionghai Xu

1953
Inferring Multi-Dimensional Ideal Points for US Supreme Court Justices
Mohammad Raihanul Islam, K.S.M. Tozammel Hossain, Siddharth Krishnan, Naren Ramakrishnan Mail

1972
Understanding Dominant Factors for Precipitation over the Great Lakes Region
Soumyadeep Chatterjee, Stefan Liess, Arindam Banerjee, Vipin Kumar

2:00-3:30 (*Sunday, 2/14*)

ML5: Optimization and Scalability for Machine Learning

Oral Presentations

428
Stochastic Optimization for Kernel PCA
Lijun Zhang, Tianbao Yang, Jinfeng Yi, Rong Jin, Zhi-Hua Zhou

1386
Unsupervised Feature Selection by Heuristic Search with Provable Bounds on Suboptimality
Hiromasa Arai, Ke Xu, Crystal Maung, Haim Schweitzer

2166
Fast ADMM Algorithm for Distributed Optimization with Adaptive Penalty
Changkyu Song, Sejong Yoon, Vladimir Pavlovic

789

Accelerated Sparse Linear Regression via Random Projection
Weizhong Zhang, Lijun Zhang, Rong Jin, Deng Cai, Xiaofei He

Poster Spotlight Talks

968

Fast Asynchronous Parallel Stochastic Gradient Descent: A Lock-Free Approach with Convergence Guarantee
Shen-Yi Zhao, Wu-Jun Li

2011

Asynchronous Distributed Semi-Stochastic Gradient Optimization
Ruiliang Zhang, Shuai Zheng, James T. Kwok

292

Stochastic Parallel Block Coordinate Descent for Large-Scale Saddle Point Problems
Zhanxing Zhu, Amos J. Storkey

1055

Fast Hybrid Algorithm for Big Matrix Recovery
Tengfei Zhou, Hui Qian, Zebang Shen, Congfu Xu

450

Accelerating Random Kaczmarz Algorithm Based on Clustering Information
Yujun Li, Kaichun Mo, Haishan Ye

1097

An Alternating Proximal Splitting Method with Global Convergence for Nonconvex Structured Sparsity Optimization
Shubao Zhang, Hui Qian, Xiaojin Gong

105

Fast Lasso Algorithm via Selective Coordinate Descent
Yasuhiro Fujiwara, Yasutoshi Ida, Hiroaki Shiokawa, Sotetsu Iwamura

1269

A Framework for Outlier Description Using Constraint Programming
Chia-Tung Kuo, Ian Davidson

784

Expected Tensor Decomposition with Stochastic Gradient Descent
Takanori Maehara, Kohei Hayashi, Ken-ichi Kawarabayashi

2:00-3:30 (*Sunday, 2/14*)

MAS1: Multi-Agent Systems

Oral Presentations

1826

Robust Execution of BDI Agent Programs by Exploiting Synergies between Intentions
Yuan Yao, Brian Logan, John Thangarajah

1676

Global Model Checking on Pushdown Multi-Agent Systems
Taolue Chen, Fu Song, Zhilin Wu

2377

Selectively Reactive Coordination for a Team of Robot Soccer Champions
Juan Pablo Mendoza, Joydeep Biswas, Philip Cooksey, Richard Wang, Steven Klee, Danny Zhu, Manuela Veloso

2437

Bayesian Learning of Other Agents' Finite Controllers for Interactive POMDPs
Alessandro Panella, Piotr Gmytrasiewicz

Poster Spotlight Talks

1298

ConTaCT : Deciding to Communicate during Time-Critical Collaborative Tasks in Unknown, Deterministic Domains
Vaibhav V. Unhelkar, Julie A. Shah

1205

Strengthening Agents Strategic Ability with Communication
Xiaowei Huang, Qingliang Chen, Kaile Su

2239

Multi-Agent Path Finding with Payload Transfers and the Package-Exchange Robot-Routing Problem
Hang Ma, Craig Tovey, Guni Sharon, T. K. Satish Kumar, Sven Koenig

723

Detection of Plan Deviation in Multi-Agent Systems
Bikramjit Banerjee, Steven Loscalzo, Daniel Lucas Thompson

885

Target Surveillance in Adversarial Environments Using POMDPs
Maxim Egorov, Mykel J. Kochenderfer, Jaak J. Uudmae

2286

Solving Transition-Independent Multi-agent MDPs with Sparse Interactions
Joris Scharpff, Diederik M. Roijers, Frans A. Oliehoek, Matthijs T. J. Spaan, Mathijs M. de Weerdt

1236

Exploiting Anonymity in Approximate Linear Programming: Scaling to Large Multiagent MDPs
Philipp Robbel, Frans A. Oliehoek, Mykel J. Kochenderfer

1030

Model Checking Probabilistic Knowledge: A PSPACE Case
Xiaowei Huang, Marta Kwiatkowska

2473

A Scalable Framework to Choose Sellers in E-Marketplaces Using POMDPs
Athirai A. Irissappane, Frans A. Oliehoek, Jie Zhang

2:00-3:30 (*Sunday, 2/14*)

ML6: Recommender Systems

Oral Presentations

1475

On the Effectiveness of Linear Models for One-Class Collaborative Filtering
Suvash Sedhain, Aditya Krishna Menon, Scott Sanner, Darius Braziunas

788

Bayesian Matrix Completion via Adaptive Relaxed Spectral Regularization
Yang Song, Jun Zhu

569

Capturing Semantic Correlation for Item Recommendation in Tagging Systems
Chaochao Chen, Xiaolin Zheng, Yan Wang, Fuxing Hong, Deren Chen

1440

Scalable Completion of Nonnegative Matrices with the Separable Structure

Xiyu Yu, Wei Bian, Dacheng Tao

Poster Spotlight Talks

2225

Optimal Discrete Matrix Completion

Zhouyuan Huo, Ji Liu, Heng Huang

318

Recommending Groups to Users Using User-Group Engagement and Time-Dependent Matrix Factorization

Xin Wang, Roger Donaldson, Christopher Nell, Peter Gorniak, Jiajun Bu, Martin Ester

199

Top-N Recommender System via Matrix Completion

Zhao Kang, Chong Peng, Qiang Cheng

2324

Microsummarization of Online Reviews: An Experimental Study

Rebecca Mason, Benjamin Gaska, Benjamin Van Durme, Pallavi Choudhury, Ted Hart, Bill Dolan, Kristina Toutanova, Margaret Mitchell

422

Inferring A Personalized Next Point-of-Interest Recommendation Model with Latent Behavior Patterns

Jing He, Xin Li, Lejian Liao, Dandan Song, William K. Cheung

226

VBPR: Visual Bayesian Personalized Ranking from Implicit Feedback

Ruining He, Julian McAuley

1231

Expressive Recommender Systems through Normalized Nonnegative Models

Cyril J. Stark

1959

STELLAR: Spatial-Temporal Latent Ranking for Successive Point-of-Interest Recommendation

Shenglin Zhao, Tong Zhao, Haiqin Yang, Michael R. Lyu, Irwin King

2:00-3:30 (*Sunday, 2/14*)

ML7: Feature and Dictionary Learning

Oral Presentations

1096

Discriminative Vanishing Component Analysis

Chenping Hou, Feiping Nie, Dacheng Tao

201

Robust Multi-View Subspace Learning through Dual Low-Rank Decompositions

Zhengming Ding, Yun Fu

1718

Scalable Algorithms for Tractable Schatten Quasi-Norm Minimization

Fanhua Shang, Yuanyuan Liu, James Cheng

219

Discriminative Analysis Dictionary Learning

Jun Guo, Yanqing Guo, Xiangwei Kong, Man Zhang, Ran He

Poster Spotlight Talks

1554

Semi-Supervised Dictionary Learning via Structural Sparse Preserving
Di Wang, Xiaoqin Zhang, Mingyu Fan, Xiuzi Ye

832

Analysis-Synthesis Dictionary Learning for Universality-Particularity Representation Based Classification
Meng Yang, Weiyang Liu, Weixin Luo, Linlin Shen

793

Coupled Dictionary Learning for Unsupervised Feature Selection
Pengfei Zhu, Qinghua Hu, Changqing Zhang, Wangmeng Zuo

207

Fixed-Rank Supervised Metric Learning on Riemannian Manifold
Yadong Mu

1732

Unsupervised Feature Selection with Structured Graph Optimization
Feiping Nie, Wei Zhu, Xuelong Li

434

Consensus Guided Unsupervised Feature Selection
Hongfu Liu, Ming Shao, Yun Fu

942

Simultaneous Feature and Sample Reduction for Image-Set Classification
Man Zhang, Ran He, Dong Cao, Zhenan Sun, Tieniu Tan

320

Instance Specific Metric Subspace Learning: A Bayesian Approach
Han-Jia Ye, De-Chuan Zhan, Yuan Jiang

321

Learning Expected Hitting Time Distance
De-Chuan Zhan, Peng Hu, Zui Chu, Zhi-Hua Zhou

2:00-3:30 (*Sunday, 2/14*)

GTEP3: Strategies and Preferences

Oral Presentations

1832

Resistance to Corruption of Strategic Argumentation
Michael J. Maher

1181

On the Complexity of mCP-nets
Thomas Lukasiewicz, Enrico Malizia

2131

Who Can Win a Single-Elimination Tournament?
Michael P. Kim, Warut Suksompong, Virginia Vassilevska Williams

1256

Computing Possible and Necessary Equilibrium Actions (and Bipartisan Set Winners)
Markus Brill, Rupert Freeman, Vincent Conitzer

Poster Spotlight Talks

118

Generating CP-Nets Uniformly at Random
Thomas E. Allen, Judy Goldsmith, Hayden E. Justice, Nicholas Mattei, Kayla Raines

1599
A Comparative Study of Ranking-Based Semantics for Abstract Argumentation
Elise Bonzon, Jérôme Delobelle, Sébastien Konieczny, Nicolas Maudet

520
Argument Mining from Speech: Detecting Claims in Political Debates
Marco Lippi, Paolo Torrioni

623
Modeling Users' Preferences and Social Links in Social Networking Services: A Joint-Evolving Perspective
Le Wu, Yong Ge, Qi Liu, Enhong Chen, Bai Long, Zhenya Huang

2482
Hospital Stockpiling Problems with Inventory Sharing
Eric Lofgren, Anil Vullikanti

2:00-3:30 (*Sunday, 2/14*)
APP1: Social Media

Oral Presentations

1294
Short Text Representation for Detecting Churn in Microblogs
Hadi Amiri, Hal Daume III

1149
College Towns, Vacation Spots, and Tech Hubs: Using Geo-Social Media to Model and Compare Locations
Hancheng Ge, James Caverlee

574
From Tweets to Wellness: Wellness Event Detection from Twitter Streams
Mohammad Akbari, Xia Hu, Nie Liqiang, Tat-Seng Chua

694
Collective Supervision of Topic Models for Predicting Surveys with Social Media
Adrian Benton, Michael J. Paul, Braden Hancock, Mark Dredze

Poster Spotlight Talks

1975
Unfolding Temporal Dynamics: Predicting Social Media Popularity Using Multi-Scale Temporal Decomposition
Bo Wu, Tao Mei, Wen-Huang Cheng, Yongdong Zhang

809
Business-Aware Visual Concept Discovery from Social Media for Multimodal Business Venue Recognition
Bor-Chun Chen, Yan-Ying Chen, Francine Chen, Dhiraj Joshi

966
Detect Overlapping Communities via Ranking Node Popularities
Di Jin, Hongcui Wang, Jianwu Dang, Dongxiao He, Weixiong Zhang

2576
Recommendation with Social Dimensions
Jiliang Tang, Suhang Wang, Xia Hu, Dawei Yin, Yingzhou Bi, Yi Chang, Huan Liu

2339
Semantic Community Identification in Large Attribute Networks
Xiao Wang, Di Jin, Xiaochun Cao, Liang Yang, Weixiong Zhang

441

Context-Sensitive Twitter Sentiment Classification Using Neural Network
Yafeng Ren, Yue Zhang, Meishan Zhang, Donghong Ji

1604

News Verification by Exploiting Conflicting Social Viewpoints in Microblogs
Zhiwei Jin, Juan Cao, Yongdong Zhang, Jiebo Luo

2:00-2:45 (*Sunday, 2/14*)

What's Hot Talks 1 (15 minutes each)

NAACL 2015

Joyce Chai

UAI 2015

Marina Meila

IUI 2015

Shimei Pan

ILP 2015

Katsumi Inoue

Kaggle Competition / Winograd Schema Challenge Competition (*9 minutes each*)

Oren Etzioni (Kaggle) and Leora Morgenstern or Charles Ortiz (Winograd)

2:00-3:35 (*Sunday, 2/14*)

IAAI-16: Computational Sustainability

Optimizing Energy Costs in a Zinc and Lead Mine

Alan Kinsella, Alan F. Smeaton, Barry Hurley, Barry O'Sullivan, Helmut Simonis

Deployed: Deploying PAWS: Field Optimization of the Protection Assistant for Wildlife Security

Fei Fang, Thanh H. Nguyen, Rob Pickles, Wai Y. Lam, Gopalasamy R. Clements, Bo An, Amandeep Singh, Milind Tambe, Andrew Lemieux

Data-Augmented Software Diagnosis

Amir Elmishali, Roni Stern, Meir Kalech

EAAI-16 (Sunday PM, 2/14)

2:00-2:15: EAAI Outstanding AI Educator Award

Stuart Russell and Peter Norvig

2:15-2:45: Poster Lightning Talks (5 minutes each)

IRobot: Teaching the Basics of Artificial Intelligence in High Schools

Harald Burgsteiner, Martin Kandlhofer, Gerald Steinbauer

An Online Logic Programming Development Environment

Christian Reotutar, Mbathio Diagne, Evgenii Balai, Edward Wertz, Peter Lee, Shao-Lon Yeh, Yuanlin Zhang

Teaching Automated Strategic Reasoning Using Capstone Tournaments

Oscar Veliz, Marcus Gutierrez, Christopher Kiekintveld

Training Watson - A Cognitive Systems Course

Michael Wollowski

A.I. As an Introduction to Research Methods in Computer Science

Raghuram Ramanujan

Using Declarative Programming in an Introductory Computer Science Course for High School Students
Maritza Reyes, Cynthia Perez, Rocky Upchurch, Timothy Yuen, Yuanlin Zhang

2:45-3:00: Break (EAAI)

3:00-5:00: Hands-On Robotics Workshop

Faculty from Olin and Harvey Mudd Colleges will present some of the novel, accessible robots used both for classes and research investigations. Platforms and demos will be available to participants to try out after a short overview.

3:30-4:00

Coffee Break

4:00-5:00 (*Sunday, 2/14*)

AAAI-16 Technical Sessions

4:00-5:00 (*Sunday, 2/14*)

ML8: Semi-Supervised Learning

Oral Presentations

1334

Large-Scale Graph-Based Semi-Supervised Learning via Tree Laplacian Solver
Yan-Ming Zhang, Xu-Yao Zhang, Xiao-Tong Yuan, Cheng-Lin Liu

497

Robust Semi-Supervised Learning through Label Aggregation
Yan Yan, Zhongwen Xu, Ivor W. Tsang, Guodong Long, Yi Yang

1317

Random Composite Forests
Giulia DeSalvo, Mehryar Mohri

Poster Spotlight Talks

1660

Towards Safe Semi-Supervised Learning for Multivariate Performance Measures
Yu-Feng Li, James T. Kwok, Zhi-Hua Zhou

2591

A Semi-Supervised Learning Approach to Why-Question Answering
Jong-Hoon Oh, Kentaro Torisawa, Chikara Hashimoto, Ryu Iida, Masahiro Tanaka, Julien Kloetzer

2349

SAND: Semi-Supervised Adaptive Novel Class Detection and Classification over Data Stream
Ahsanul Haque, Latifur Khan, Michael Baron

4:00-5:00 (*Sunday, 2/14*)

Search3: Optimization I

Oral Presentations

474

Relaxed Majorization-Minimization for Non-Smooth and Non-Convex Optimization
Chen Xu, Zhouchen Lin, Zhenyu Zhao, Hongbin Zha

1504

Derivative-Free Optimization via Classification
Yang Yu, Hong Qian, Yi-Qi Hu

1150

Alternative Filtering for the Weighted Circuit Constraint: Comparing Lower Bounds for the TSP and Solving TSPTW

Sylvain Ducomman, Hadrien Cambazard, Bernard Penz

Poster Spotlight Talks

911

Fast Proximal Linearized Alternating Direction Method of Multiplier with Parallel Splitting

Canyi Lu, Huan Li, Zhouchen Lin, Shuicheng Yan

1728

Scaling Simultaneous Optimistic Optimization for High-Dimensional Non-Convex Functions with Low Effective Dimensions

Hong Qian, Yang Yu

1990

A Proactive Sampling Approach to Project Scheduling under Uncertainty

Pradeep Varakantham, Na Fu, Hoong Chuin Lau

4:00-5:00 (*Sunday, 2/14*)

KRR1: Causation and Diagnosis

Oral Presentations

2690

Automated Verification and Tightening of Failure Propagation Models

Benjamin Bittner, Marco Bozzano, Alessandro Cimatti, Gianni Zampedri

1206

Causal Explanation Under Indeterminism: A Sampling Approach

Christopher A. Merck, Samantha Kleinberg

2426

Metaphysics of Planning Domain Descriptions

Siddharth Srivastava, Stuart Russell, Alessandro Pinto

Poster Spotlight Talks

2045

Separators and Adjustment Sets in Markov Equivalent DAGs

Benito van der Zander, Maciej Liskiewicz

175

Learning Abductive Reasoning Using Random Examples

Brendan Juba

759

Implementing Troubleshooting with Batch Repair

Roni Stern, Meir Kalech, Hilla Shinitzky

4:00-5:00 (*Sunday, 2/14*)

VIS3: Pose Estimation

Oral Presentations

2305

Pose-Guided Human Parsing by an AND/OR Graph Using Pose-Context Features

Fangting Xia, Jun Zhu, Peng Wang, Alan L. Yuille

1447

Articulated Pose Estimation Using Hierarchical Exemplar-Based Models
Jiongxin Liu, Yinxiao Li, Peter Allen, Peter Belhumeur

519
Pose-Dependent Low-Rank Embedding for Head Pose Estimation
Handong Zhao, Zhengming Ding, Yun Fu

Poster Spotlight Talks

844
DARI: Distance Metric and Representation Integration for Person Verification
Guangrun Wang, Liang Lin, Shengyong Ding, Ya Li, Qing Wang

403
Large Scale Similarity Learning Using Similar Pairs for Person Verification
Yang Yang, Shengcai Liao, Zhen Lei, Stan Z. Li

222
Face Behind Makeup
Shuyang Wang, Yun Fu

4:00-5:00 (Sunday, 2/14)

NLP3: Word/Phrase Embedding

Oral Presentations

251
Inside Out: Two Jointly Predictive Models for Word Representations and Phrase Representations
Fei Sun, Jiafeng Guo, Yanyan Lan, Jun Xu, Xueqi Cheng

193
Minimally-Constrained Multilingual Embeddings via Artificial Code-Switching
Michael Wick, Pallika Kanani, Adam Pocock

327
Generalised Brown Clustering and Roll-Up Feature Generation
Leon Derczynski, Sean Chester

Poster Spotlight Talks

915
Building Earth Mover's Distance on Bilingual Word Embeddings for Machine Translation
Meng Zhang, Yang Liu, Huanbo Luan, Maosong Sun, Tatsuya Izuha, Jie Hao

2640
A Generative Model of Words and Relationships from Multiple Sources
Stephanie L. Hyland, Theofanis Karaletsos, Gunnar Rätsch

1999
Single or Multiple? Combining Word Representations Independently Learned from Text and WordNet
Josu Goikoetxea, Eneko Agirre, Aitor Soroa

4:00-5:00 (Sunday, 2/14)

APP2: Security

Oral Presentations

2094
Data Poisoning Attacks against Autoregressive Models
Scott Alfeld, Xiaojin Zhu, Paul Barford

570

One Size Does Not Fit All: A Game-Theoretic Approach for Dynamically and Effectively Screening for Threats
Matthew Brown, Arunesh Sinha, Aaron Schlenker, Milind Tambe

1639

Computing Optimal Monitoring Strategy for Detecting Terrorist Plots
Zhen Wang, Yue Yin, Bo An

Poster Spotlight Talks

1195

Multi-Defender Strategic Filtering against Spear-Phishing Attacks
Aron Laszka, Jian Lou, Yevgeniy Vorobeychik

1585

Optimizing Personalized Email Filtering Thresholds to Mitigate Sequential Spear Phishing Attacks
Mengchen Zhao, Bo An, Christopher Kiekintveld

272

Behavioral Experiments in Email Filter Evasion
Liyiming Ke, Bo Li, Yevgeniy Vorobeychik

4:00-5:00 (*Sunday, 2/14*)

AIW3: Machine Learning and the Web

Oral Presentations

1310

Holographic Embeddings of Knowledge Graphs
Maximilian Nickel, Lorenzo Rosasco, Tomaso Poggio

254

"8 Amazing Secrets for Getting More Clicks": Detecting Clickbaits in News Streams Using Article Informality
Prakhar Biyani, Kostas Tsioutsoulis, John Blackmer

929

Hashtag-Based Sub-Event Discovery Using Mutually Generative LDA in Twitter
Chen Xing, Yuan Wang, Jie Liu, Yalou Huang, Wei-Ying Ma

Poster Spotlight Talks

667

A Proximal Alternating Direction Method for Semi-Definite Rank Minimization
Ganzhao Yuan, Bernard Ghanem

2269

Lift-Based Bidding in Ad Selection
Jian Xu, Xuhui Shao, Jianjie Ma, Kuang-chih Lee, Hang Qi, Quan Lu

2636

ClaimEval: Integrated and Flexible Framework for Claim Evaluation Using Credibility of Sources
Mehdi Samadi, Partha Talukdar, Manuela Veloso, Manuel Blum

4:00-5:00 (*Sunday, 2/14*)

ROB2: RSS Invited, Robotics Fellowship

RSS Invited Talks

Multipolicy Decision-Making for Autonomous Driving via Changepoint-Based Behavior Prediction
Enric Galceran, Alexander Cunningham, Ryan Eustice, Edwin Olson

Grounding English Commands to Reward Functions (M18)

James MacGlashan, Monica Babes-Vroman, Marie desJardins, Michael Littman, Smaranda Muresan, Shawn Squire, Stefanie Tellex, Dilip Arumugam, Lei Yang

Adaptive Coordination Strategies for Human-Robot Handovers

Chien-Ming Huang, Maya Cakmak, Bilge Mutlu

Robotics Fellowship Talks

Learning Compositional Object Representation with Functionality

Safoura Lakani

Multi-Fingered Robotic Grasping from Visual and Tactile Sensory Input

Jacob Varley

Hierarchical and Structured Representations of Knowledge in Robotics

Roberto Capobianco

4:00-5:00 (Sunday, 2/14)

IAAI-16: IAAI-16 Invited Talk: Naveen Rao (Nervana, Inc.)
Rethinking Computation: Substrates for Machine Intelligence

5:00-5:10

Transition

5:10-6:10 (Sunday, 2/14)

AAAI-16 Invited Talk: Andreas Krause
From Proteins to Robots: Learning to Optimize with Confidence

6:10-7:10 (Sunday, 2/14)

AAAI/ACM SIGAI Job Fair

6:30-8:30 (Sunday, 2/14)

Poster / Demo Reception 1

All technical spotlight papers presented earlier today will be presented in poster format, as well as Doctoral Consortium abstracts and EAAI poster papers. The following demos will also be presented this evening:

Multi-Agent System Development MADE Easy

Zhiqi Shen, Han Yu, Chunyan Miao, Siyao Li, Yiqiang Chen

Artificial Intelligence for Predictive and Evidence Based Architecture Design

Mehul Bhatt, Jakob Suchan, Carl Schultz, Vasiliki Kondyli, Saurabh Goyal

co-rank: An Online Tool for Collectively Deciding Efficient Rankings Among Peers

Ioannis Caragiannis, George A. Krimpas, Marianna Panteli, Alexandros A. Voudouris

Deploying PAWS to Combat Poaching: Game-Theoretic Patrolling in Areas with Complex Terrain
(Demonstration)

Fei Fang, Thanh H. Nguyen, Rob Pickles, Wai Y. Lam, Gopaldasamy R. Clements, Bo An, Amandeep Singh, Milind Tambe

Predicting Gaming Related Properties from Twitter Accounts

Maria Ivanova Gorinova, Yoad Lewenberg, Yoram Bachrach, Alfredo Kalaitzis, Michael Fagan, Dean Carignan, Nitin Gautam

NLU Framework for Voice Enabling Non-Native Applications on Smart Devices

Soujanya Lanka, Deepika Pathania, Pooja Kushalappa, Pradeep Varakantham

DECT: Distributed Evolving Context Tree for Understanding User Behavior Pattern Evolution

Xiaokui Shu, Nikolay Pavlovich Laptev, Danfeng (Daphne) Yao

Using Convolutional Neural Networks to Analyze Function Properties from Images
Yoad Lewenberg, Yoram Bachrach, Ian Kash, Peter Key

Productive Aging through Intelligent Personalized Crowdsourcing
Han Yu, Chunyan Miao, Siyuan Liu, Zhengxiang Pan, N. Syahidah B. Khalid, Zhiqi Shen, Cyril Leung

Markov Argumentation Random Fields
Yuqing Tang, Nir Oren, Katia Sycara

Monday, February 15

7:45-8:45

Women's Mentoring Breakfast

8:50-9:50

AAAI-16 Invited Talk: Susan Murphy ***Learning Treatment Policies in Mobile Health***

9:50-10:00

Transition

10:00-11:00 (*Monday, 2/15*)

AAAI-16 Technical Sessions

10:00-11:00 (*Monday, 2/15*)

ML9: Transfer Learning I

Oral Presentations

372

Knowledge Transfer with Interactive Learning of Semantic Relationships
Jonghyun Choi, Sung Ju Hwang, Leonid Sigal, Larry S. Davis

2400

Learning by Transferring from Unsupervised Universal Sources
Yu-Xiong Wang, Martial Hebert

2162

A Probabilistic Approach to Knowledge Translation
Shangpu Jiang, Daniel Lowd, Dejing Dou

Poster Spotlight Talks

393

Instilling Social to Physical: Co-Regularized Heterogeneous Transfer Learning
Ying Wei, Yin Zhu, Cane Wing-ki Leung, Yangqiu Song, Qiang Yang

1009

Transfer Learning for Cross-Language Text Categorization through Active Correspondences Construction
Joey Tianyi Zhou, Sinno Jialin Pan, Ivor W. Tsang, Shen-Shyang Ho

370

Cold-Start Heterogeneous-Device Wireless Localization
Vincent W. Zheng, Hong Cao, Shenghua Gao, Aditi Adhikari, Miao Lin, Kevin Chen-Chuan Chang

10:00-11:00 (*Monday, 2/15*)

ML10: Active Learning

Oral Presentations

1119

Re-active Learning: Active Learning with Relabeling
Christopher H. Lin, Mausam, Daniel S. Weld

1160

A POMDP Formulation of Proactive Learning
Kyle Hollins Wray, Shlomo Zilberstein

2007

Multi-Domain Active Learning for Recommendation
Zihan Zhang, Xiaoming Jin, Lianghao Li, Guiguang Ding, Qiang Yang

Poster Spotlight Talks

1442

Robustness of Bayesian Pool-Based Active Learning Against Prior Misspecification
Nguyen Viet Cuong, Nan Ye, Wee Sun Lee

849

Active Learning with Cross-Class Knowledge Transfer
Yuchen Guo, Guiguang Ding, Yuqi Wang, Xiaoming Jin

556

Noisy Submodular Maximization via Adaptive Sampling with Applications to Crowdsourced Image Collection Summarization
Adish Singla, Sebastian Tschatschek, Andreas Krause

10:00-11:00 (*Monday, 2/15*)

KRR2: SAT and ASP

Oral Presentations

2628

Boolean Functions with Ordered Domains in Answer Set Programming
Mario Alviano, Wolfgang Faber, Hannes Strass

1202

Solving Goal Recognition Design Using ASP
Tran Cao Son, Orkunt Sabuncu, Christian Schulz-Hanke, Torsten Schaub, William Yeoh

1619

SAT-to-SAT: Declarative Extension of SAT Solvers with New Propagators
Tomi Janhunen, Shahab Tasharrofi, Eugenia Ternovska

Poster Spotlight Talks

1225

Component Caching in Hybrid Domains with Piecewise Polynomial Densities
Vaishak Belle, Guy Van den Broeck, Andrea Passerini

1025

On the Containment of SPARQL Queries under Entailment Regimes
Melisachew Wudage Chekol

1249

Query Answering with Inconsistent Existential Rules under Stable Model Semantics
Hai Wan, Heng Zhang, Peng Xiao, Haoran Huang, Yan Zhang

10:00-11:00 (*Monday, 2/15*)

NLP4: Relation Extraction

Oral Presentations

1484

Aggregating Inter-Sentence Information to Enhance Relation Extraction
Hao Zheng, Zhoujun Li, Senzhang Wang, Zhao Yan, Jianshe Zhou

587

Improving Opinion Aspect Extraction Using Semantic Similarity and Aspect Associations
Qian Liu, Bing Liu, Yuanlin Zhang, Doo Soon Kim, Zhiqiang Gao

1501

Numerical Relation Extraction with Minimal Supervision
Aman Madaan, Ashish Mittal, Mausam, Ganesh Ramakrishnan, Sunita Sarawagi

Poster Spotlight Talks

1839

Distant IE by Bootstrapping Using Lists and Document Structure
Lidong Bing, Mingyang Ling, Richard C. Wang, William W. Cohen

1568

A Joint Model for Entity Set Expansion and Attribute Extraction from Web Search Queries
Zhenzhong Zhang, Le Sun, Xianpei Han

1518

Representing Verbs as Argument Concepts
Yu Gong, Kaiqi Zhao, Kenny Q. Zhu

10:00-11:00 (*Monday, 2/15*)

ML11: Time Series

Oral Presentations

446

Online ARIMA Algorithms for Time Series Prediction
Chenghao Liu, Steven C. H. Hoi, Peilin Zhao, Jianling Sun

1218

Learning Continuous-Time Bayesian Networks in Relational Domains: A Non-Parametric Approach
Shuo Yang, Tushar Khot, Kristian Kersting, Sriraam Natarajan

739

Survival Prediction by an Integrated Learning Criterion on Intermittently Varying Healthcare Data
Jianfei Zhang, Lifei Chen, Alain Vanasse, Josiane Courteau, Shengrui Wang

Poster Spotlight Talks

604

Interaction Point Processes via Infinite Branching Model
Peng Lin, Bang Zhang, Ting Guo, Yang Wang, Fang Chen

1374

Efficient Learning of Timeseries Shapelets
Lu Hou, James T. Kwok, Jacek M. Zurada

10:00-11:00 (*Monday, 2/15*)

GTEP4: Game Theoretic Equilibrium

Oral Presentations

1929

From Duels to Battlefields: Computing Equilibria of Blotto and Other Games

AmirMahdi Ahmadinejad, Sina Dehghani, MohammadTaghi Hajiaghayi, Brendan Lucier, Hamid Mahini, Saeed Seddighin

1727

Using Correlated Strategies for Computing Stackelberg Equilibria in Extensive-Form Games

Jiri Cermak, Branislav Bosansky, Karel Durkota, Viliam Lisy, Christopher Kiekintveld

1803

Variations on the Hotelling-Downs Model

Michal Feldman, Amos Fiat, Svetlana Obraztsova

Poster Spotlight Talks

2188

Refining Subgames in Large Imperfect Information Games

Martin Schmid, Matej Moravcik, Karel Ha, Milan Hladik, Stephen Gaukrodger

1601

Sequence-Form and Evolutionary Dynamics: Realization Equivalence to Agent Form and Logit Dynamics

Nicola Gatti, Marcello Restelli

10:00-11:00 (*Monday, 2/15*)

APP3: Social Networks

Oral Presentations

618

DRIMUX: Dynamic Rumor Influence Minimization with User Experience in Social Networks

Biao Wang, Ge Chen, Luoyi Fu, Li Song, Xinbing Wang, Xue Liu

593

On the Minimum Differentially Resolving Set Problem for Diffusion Source Inference in Networks

Chuan Zhou, Wei-Xue Lu, Peng Zhang, Jia Wu, Yue Hu, Li Guo

1542

Social Role-Aware Emotion Contagion in Image Social Networks

Yang Yang, Jia Jia, Boya Wu, Jie Tang

Poster Spotlight Talks

2064

Temporal Vaccination Games Under Resource Constraints

Abhijin Adiga, Anil Vullikanti

1199

Closeness Centrality for Networks with Overlapping Community Structure

Mateusz K. Tarkowski, Piotr Szczepański, Talal Rahwan, Tomasz P. Michalak, Michael Wooldridge

69

Little Is Much: Bridging Cross-Platform Behaviors through Overlapped Crowds

Meng Jiang, Peng Cui, Nicholas Jing Yuan, Xing Xie, Shiqiang Yang

10:00-11:00 (*Monday, 2/15*)

Student Abstract Spotlights (3 minutes each)

The following subset of student abstracts has been selected for oral spotlight presentation. These finalists will be eligible for the best 3-minute presentation award.

2796

A Comparison of Supervised Learning Algorithms for Telerobotic Control Using Electromyography Signals

Tyler M. Frasca, Antonio G. Sestito, Craig Versek, Douglas E. Dow, Barry C. Husowitz, Nate Derbinsky

2802

SPAN: Understanding a Question with Its Support Answers
Liang Pang, Yanyan Lan, Jiafeng Guo, Jun Xu, Xueqi Cheng

2808

Towards Structural Tractability in Hedonic Games
Dominik Peters

2824

MIP-Nets: Enabling Information Sharing in Loosely-Coupled Teamwork
Ofra Amir, Barbara J. Grosz, Krzysztof Z. Gajos

2828

Image Privacy Prediction Using Deep Features
Ashwini Kishore Tonge, Cornelia Caragea

2829

Counter-Transitivity in Argument Ranking Semantics
Fuan Pu, Jian Luo, Guiming Luo

2858

Bayesian AutoEncoder: Generation of Bayesian Networks with Hidden Nodes for Features
Kaneharu Nishino, Mary Inaba

2863

Bayesian Markov Games with Explicit Finite-Level Types
Muthukumaran Chandrasekaran, Yingke Chen, Prashant Doshi

2879

BRBA: A Blocking-Based Association Rule Hiding Method
Peng Cheng, Ivan Lee, Li Li, Kuo-Kun Tseng, Jeng-Shyang Pan

2743

Epitomic Image Super-Resolution
Yingzhen Yang, Zhangyang Wang, Zhaowen Wang, Shiyu Chang, Ding Liu, Honghui Shi, Thomas S. Huang

2823

Robust Execution Strategies for Probabilistic Temporal Planning
Sam Dietrich, Kyle Lund, James C. Boerkoel Jr.

2836

Monte Carlo Tree Search for Multi-Robot Task Allocation
Bilal Kartal, Ernesto Nunes, Julio Godoy, Maria Gini

2840

Heuristic Planning for Hybrid Systems
Wiktor Mateusz Piotrowski, Maria Fox, Derek Long, Daniele Magazzeni, Fabio Mercorio

2727

Mobility Sequence Extraction and Labeling Using Sparse Cell Phone Data
Yingxiang Yang, Peter Widhalm, Shounak Athavale, Marta Gonzalez

2815

Pseudo-Tree Construction Heuristics for DCOPs with Variable Communication Times
Atena M Tabakhi

10:00-11:00 (*Monday, 2/15*)

IAAI-16: Machine Learning/Data Mining II: Digital Libraries

Document Type Classification in Online Digital Libraries
Cornelia Caragea, Jian Wu, Sujatha Das Gollapalli, C. Lee Giles

MetaSeer.STEM:Towards Automating Meta-Analyses
Kishore Neppalli, Cornelia Caragea, Robin Mayes, Kim Nimon, Fred Oswald

11:00-11:30 (*Monday, 2/15*)

Coffee Break

11:30-12:30 (*Monday, 2/15*)

AAAI-16 Technical Sessions

11:30-12:30 (*Monday, 2/15*)

ML12: Transfer Learning II

Oral Presentations

1054

Multi-Stage Multi-Task Learning with Reduced Rank
Lei Han, Yu Zhang

1362

Reuse of Neural Modules for General Video Game Playing
Elliot Meyerson, Alexander Braylan, Mark Hollenbeck, Risto Miikkulainen

1659

Relational Knowledge Transfer for Zero-Shot Learning
Donghui Wang, Yanan Li, Yuetan Lin, Yueting Zhuang

Poster Spotlight Talks

355

Collective Noise Contrastive Estimation for Policy Transfer Learning
Weinan Zhang, Ulrich Paquet, Katja Hofmann

901

Domain-Constraint Transfer Coding for Imbalanced Unsupervised Domain Adaptation
Yao-Hung Hubert Tsai, Cheng-An Hou, Wei-Yu Chen, Yi-Ren Yeh, Yu-Chiang Frank Wang

547

Return of Frustratingly Easy Domain Adaptation
Baochen Sun, Jiashi Feng, Kate Saenko

11:30-12:30 (*Monday, 2/15*)

ML13: Temporal Pattern Recognition

Oral Presentations

388

Recognizing Complex Activities by a Probabilistic Interval-Based Model
Li Liu, Li Cheng, Ye Liu, Yongpo Jia, David S. Rosenblum

860

Efficient Spatio-Temporal Tactile Object Recognition with Randomized Tiling Convolutional Networks in a Hierarchical Fusion Strategy
Lele Cao, Ramamohanarao Kotagiri, Fuchun Sun, Hongbo Li, Wenbing Huang, Zay Maung Maung Aye

1051

Convolution Kernels for Discriminative Learning from Streaming Text
Michal Lukasik, Trevor Cohn

Poster Spotlight Talks

1588

Graph-without-Cut: An Ideal Graph Learning for Image Segmentation
Lianli Gao, Jingkuan Song, Feiping Nie, Fuhao Zou, Nicu Sebe, Heng Tao Shen

312

Path Following with Adaptive Path Estimation for Graph Matching
Tao Wang, Haibin Ling

467

Recognizing Actions in 3D Using Action-Snippets and Activated Simplices
Chunyu Wang, John Flynn, Yizhou Wang, Alan L. Yuille

11:30-12:30 (*Monday, 2/15*)

KRR3: Complexity and Description Logic

Oral Presentations

619

Explaining Inconsistency-Tolerant Query Answering over Description Logic Knowledge Bases
Meghyn Bienvenu, Camille Bourgaux, François Goasdoué

641

A Model for Learning Description Logic Ontologies Based on Exact Learning
Boris Konev, Ana Ozaki, Frank Wolter

975

Complexity Results and Algorithms for Extension Enforcement in Abstract Argumentation
Johannes P. Wallner, Andreas Niskanen, Matti Järvisalo

Poster Spotlight Talks

2001

Beyond OWL 2 QL in OBDA: Rewritings and Approximations
Elena Botoeva, Diego Calvanese, Valerio Santarelli, Domenico F. Savo, Alessandro Solimando, Guohui Xiao

1175

Basic Probabilistic Ontological Data Exchange with Existential Rules
Thomas Lukasiewicz, Maria Vanina Martinez, Livia Predoiu, Gerardo I. Simari

1712

Using Decomposition-Parameters for QBF: Mind the Prefix!
Eduard Eiben, Robert Ganian, Sebastian Ordyniak

11:30-12:30 (*Monday, 2/15*)

NLP5: Semantics and Summarization

Oral Presentations

1721

PEAK: Pyramid Evaluation via Automated Knowledge Extraction
Qian Yang, Rebecca J. Passonneau, Gerard de Melo

2288

Inferring Interpersonal Relations in Narrative Summaries
Shashank Srivastava, Snigdha Chaturvedi, Tom Mitchell

33

Ask, and Shall You Receive?: Understanding Desire Fulfillment in Natural Language Text
Snigdha Chaturvedi, Dan Goldwasser, Hal Daume III

Poster Spotlight Talks

502

TGSum: Build Tweet Guided Multi-Document Summarization Dataset
Ziqiang Cao, Chengyao Chen, Wenjie Li, Sujian Li, Furu Wei, Ming Zhou

156

Dependency Tree Representations of Predicate-Argument Structures
Likun Qiu, Yue Zhang, Meishan Zhang

1044

Learning to Generate Poster Spotlight Talks of Scientific Papers
Yuting Qiang, Yanwei Fu, Yanwen Guo, Zhi-Hua Zhou, Leonid Sigal

11:30-12:30 (*Monday, 2/15*)

APP4: Privacy

Oral Presentations

2071

On the Differential Privacy of Bayesian Inference
Zuhe Zhang, Benjamin I. P. Rubinstein, Christos Dimitrakakis

898

Differential Privacy Preservation for Deep Auto-Encoders: An Application of Human Behavior Prediction
NhatHai Phan, Yue Wang, Xintao Wu, Dejing Dou

1611

Logical Foundations of Privacy-Preserving Publishing of Linked Data
Bernardo Cuenca Grau, Egor V. Kostylev

Poster Spotlight Talks

134

Privacy-CNH: A Framework to Detect Photo Privacy with Convolutional Neural Network Using Hierarchical Features
Lam Tran, Deguang Kong, Hongxia Jin, Ji Liu

367

Wishart Mechanism for Differentially Private Principal Components Analysis
Wuxuan Jiang, Cong Xie, Zhihua Zhang

11:30-12:30 (*Monday, 2/15*)

PS1: Planning

Oral Presentations

1966

Towards Clause-Learning State Space Search: Learning to Recognize Dead-Ends
Marcel Steinmetz, Joerg Hoffmann

2115

Efficient Macroscopic Urban Traffic Models for Reducing Congestion: A PDDL+ Planning Approach
Mauro Vallati, Daniele Magazzeni, Bart De Schutter, Lukas Chrpá, Thomas L. McCluskey

974

Tiebreaking Strategies for A* Search: How to Explore the Final Frontier
Masataro Asai, Alex Fukunaga

Poster Spotlight Talks

1246

Bayesian Inference of Recursive Sequences of Group Activities from Tracks
Ernesto Brau, Colin Dawson, Alfredo Carrillo, David Sidi, Clayton T. Morrison

2330

Approximation Algorithms for Route Planning with Nonlinear Objectives
Ger Yang, Evdokia Nikolova

2394

General Error Bounds in Heuristic Search Algorithms for Stochastic Shortest Path Problems
Eric A. Hansen, Ibrahim Abdoulaoui

11:30-12:30 (*Monday, 2/15*)

HAI1: Humans and AI

Oral Presentations

1761

Intelligent Advice Provisioning for Repeated Interaction
Priel Levy, David Sarne

168

Instructable Intelligent Personal Agent
Amos Azaria, Jayant Krishnamurthy, Tom M. Mitchell

414

A Deep Choice Model
Makoto Otsuka, Takayuki Osogami

Poster Spotlight Talks

169

Personalized Alert Agent for Optimal User Performance
Avraham Shvartzon, Amos Azaria, Sarit Kraus, Claudia V. Goldman, Joachim Meyer, Omer Tsimhoni

839

Egocentric Video Search via Physical Interactions
Taiki Miyanishi, Jun-ichiro Hirayama, Quan Kong, Takuya Maekawa, Hiroki Moriya, Takayuki Suyama

11:30-12:30 (*Monday, 2/15*)

Senior Member Talks 1: Blue Sky Talks

2787

Indefinite Scalability for Living Computation
David H. Ackley

2769

Embedding Ethical Principles in Collective Decision Support Systems
Joshua Greene, Francesca Rossi, John Tasioulas, Kristen Brent Venable, Brian Williams

2744

Five Dimensions of Reasoning in the Wild
Don Perlis

11:30-12:30 (*Monday, 2/15*)

IAAI-16: Application II: Autonomous Vehicle and Challenge Paper

An Autonomous Override System to Prevent Airborne Loss of Control
Sweewarman Balachandran, Ella M. Atkins

Challenge Problem Paper: Infusing Human Factors into Algorithmic Crowdsourcing
Han Yu, Chunyan Miao, Zhiqi Shen, Jun Lin, Cyril Leung, Qiang Yang

12:30-2:00

Lunch Break (Lunch with a Fellow-offsite)

2:00-3:30 (Monday, 2/15)

AAAI-16 Technical Sessions

2:00-3:30 (Monday, 2/15)

ML14: Clustering

Oral Presentations

1667

The Constrained Laplacian Rank Algorithm for Graph-Based Clustering
Feiping Nie, Xiaoqian Wang, Michael I. Jordan, Heng Huang

476

Multiple Kernel k-Means Clustering with Matrix-Induced Regularization
Xinwang Liu, Yong Dou, Jianping Yin, Lei Wang, En Zhu

732

The Hidden Convexity of Spectral Clustering
James Voss, Mikhail Belkin, Luis Rademacher

572

Maximum Margin Dirichlet Process Mixtures for Clustering
Gang Chen, Haiying Zhang, Caiming Xiong

Poster Spotlight Talks

329

Decentralized Robust Subspace Clustering
Bo Liu, Xiao-Tong Yuan, Yang Yu, Qingshan Liu, Dimitris N. Metaxas

1354

Scalable Sequential Spectral Clustering
Yeqing Li, Junzhou Huang, Wei Liu

1000

Approximate K-Means++ in Sublinear Time
Olivier Bachem, Mario Lucic, S. Hamed Hassani, Andreas Krause

2197

On Order-Constrained Transitive Distance Clustering
Zhiding Yu, Weiyang Liu, Wenbo Liu, Yingzhen Yang, Ming Li, B. V. K. Vijaya Kumar

2292

Reconstructing Hidden Permutations Using the Average-Precision (AP) Correlation Statistic
Lorenzo De Stefani, Alessandro Epasto, Eli Upfal, Fabio Vandin

1618

Viral Clustering: A Robust Method to Extract Structures in Heterogeneous Datasets
Vahan Petrosyan, Alexandre Proutiere

384

Video Semantic Clustering with Sparse and Incomplete Tags
Jingya Wang, Xiatian Zhu, Shaogang Gong

586

Product Grassmann Manifold Representation and Its LRR Models
Boyue Wang, Yongli Hu, Junbin Gao, Yanfeng Sun, Baocai Yin

903

Infinite Plaid Models for Infinite Bi-Clustering
Katsuhiko Ishiguro, Issei Sato, Masahiro Nakano, Akisato Kimura, Naonori Ueda

2:00-3:30 (*Monday, 2/15*)

ML15: Deep Learning I

Oral Presentations

920

On the Depth of Deep Neural Networks: A Theoretical View
Shizhao Sun, Wei Chen, Liwei Wang, Xiaoguang Liu, Tie-Yan Liu

1229

How Important Is Weight Symmetry in Backpropagation?
Qianli Liao, Joel Z. Leibo, Tomaso Poggio

1769

Deep Learning with S-Shaped Rectified Linear Activation Units
Xiaojie Jin, Chunyan Xu, Jiashi Feng, Yunchao Wei, Junjun Xiong, Shuicheng Yan

1142

Learning Step Size Controllers for Robust Neural Network Training
Christian Daniel, Jonathan Taylor, Sebastian Nowozin

Poster Spotlight Talks

1355

Convolutional Neural Networks over Tree Structures for Programming Language Processing
Lili Mou, Ge Li, Lu Zhang, Tao Wang, Zhi Jin

186

Learning Deep ℓ_0 Encoders
Zhangyang Wang, Qing Ling, Thomas S. Huang

1488

Learning FRAME Models Using CNN Filters
Yang Lu, Song-Chun Zhu, Ying Nian Wu

757

Conservativeness of Untied Auto-Encoders
Jiwoong Im, Mohamed Ishmael Belghazi, Roland Memisevic

1070

Adaptive Normalized Risk-Averting Training for Deep Neural Networks
Zhiguang Wang, Tim Oates, James Lo

2256

High-Order Stochastic Gradient Thermostats for Bayesian Learning of Deep Models
Chunyuan Li, Changyou Chen, Kai Fan, Lawrence Carin

281

Deep Hashing Network for Efficient Similarity Retrieval
Han Zhu, Mingsheng Long, Jianmin Wang, Yue Cao

2:00-3:30 (*Monday, 2/15*)

KRR4: Time and Knowledge

Oral Presentations

2132

A Semantical Analysis of Second-Order Propositional Modal Logic
Francesco Belardinelli, Wiebe van der Hoek

160

Qualitative Spatio-Temporal Stream Reasoning with Unobservable Intertemporal Spatial Relations Using Landmarks
Daniel de Leng, Fredrik Heintz

706

Dynamic Controllability of Disjunctive Temporal Networks: Validation and Synthesis of Executable Strategies
Alessandro Cimatti, Andrea Micheli, Marco Roveri

1662

'Knowing Whether' in Proper Epistemic Knowledge Bases
Tim Miller, Paolo Felli, Christian Muise, Adrian Pearce, Liz Sonenberg

Poster Spotlight Talks

1228

A First-Order Logic of Probability and Only Knowing in Unbounded Domains
Vaishak Belle, Gerhard Lakemeyer, Hector J. Levesque

1227

Complementing Semantic Roles with Temporally-Anchored Spatial Knowledge: Crowdsourced Annotations and Experiments
Alakananda Vempala, Eduardo Blanco

2:00-3:30 (*Monday, 2/15*)

NLP6: Discourse and Question Answering

Oral Presentations

1532

Implicit Discourse Relation Classification via Multi-Task Neural Networks
Yang Liu, Sujian Li, Xiaodong Zhang, Zhifang Sui

27

A Unified Bayesian Model of Scripts, Frames and Language
Francis Ferraro, Benjamin Van Durme

1630

QART: A System for Real-Time Holistic Quality Assurance for Contact Center Dialogues
Shourya Roy, Rangunathan Mariappan, Sandipan Dandapat, Saurabh Srivastava, Sainyam Galhotra, Balaji Peddamuthu

720

Learning Statistical Scripts with LSTM Recurrent Neural Networks
Karl Pichotta, Raymond J. Mooney

Poster Spotlight Talks

852

Building End-To-End Dialogue Systems Using Generative Hierarchical Neural Network Models
Iulian Vlad Serban, Alessandro Sordoni, Yoshua Bengio, Aaron Courville, Joelle Pineau

522

A Joint Model for Question Answering over Multiple Knowledge Bases

Yuanzhe Zhang, Shizhu He, Kang Liu, Jun Zhao

2393

Combining Retrieval, Statistics, and Inference to Answer Elementary Science Questions

Peter Clark, Oren Etzioni, Tushar Khot, Ashish Sabharwal, Oyvind Tafjord, Peter Turney, Daniel Khashabi

1137

An Oral Exam for Measuring a Dialog System's Capabilities

David Cohen, Ian Lane

2443

Evaluation of Semantic Dependency Labeling across Domains

Svetlana Stoyanchev, Amanda Stent, Srinivas Bangalore

893

Discourse Relations Detection via a Mixed Generative-Discriminative Framework

Jifan Chen, Qi Zhang, Pengfei Liu, Xuanjing Huang

2634

Joint Inference over a Lightly Supervised Information Extraction Pipeline: Towards Event Coreference Resolution for Resource-Scarce Languages

Chen Chen, Vincent Ng

101

Community-Based Question Answering via Heterogeneous Social Network Learning

Hanyin Fang, Fei Wu, Zhou Zhao, Xinyu Duan, Martin Ester, Yueting Zhuang

2399

Topic Concentration in Query Focused Summarization Datasets

Tal Baumel, Raphael Cohen, Michael Elhadad

2:00-3:30 (*Monday, 2/15*)

ML16: Probability Models

Oral Presentations

1396

Progressive EM for Latent Tree Models and Hierarchical Topic Detection

Peixian Chen, Nevin L. Zhang, Leonard K. M. Poon, Zhourong Chen

124

Random Mixed Field Model for Mixed-Attribute Data Restoration

Qiang Li, Wei Bian, Richard Yi Da Xu, Jane You, Dacheng Tao

2420

Learning Tractable Probabilistic Models for Fault Localization

Aniruddh Nath, Pedro Domingos

2433

Structured Features in Naive Bayes Classification

Arthur Choi, Nazgol Tavabi, Adnan Darwiche

Poster Spotlight Talks

1177

Extending the Modelling Capacity of Gaussian Conditional Random Fields while Learning Faster

Jesse Glass, Mohamed Ghalwash, Milan Vukicevic, Zoran Obradovic

2548

Near-Optimal Active Learning of Multi-Output Gaussian Processes

Yehong Zhang, Trong Nghia Hoang, Kian Hsiang Low, Mohan Kankanhalli

588

DinTucker: Scaling Up Gaussian Process Models on Large Multidimensional Arrays
Shandian Zhe, Yuan Qi, Youngja Park, Zenglin Xu, Ian Molloy, Suresh Chari

2425

On Parameter Tying by Quantization
Li Chou, Somdeb Sarkhel, Nicholas Ruoizzi, Vibhav Gogate

2293

Flattening the Density Gradient for Eliminating Spatial Centrality to Reduce Hubness
Kazuo Hara, Ikumi Suzuki, Kei Kobayashi, Kenji Fukumizu, Milos Radovanovic

1293

Learning Future Classifiers without Additional Data
Atsutoshi Kumagai, Tomoharu Iwata

2:00-3:30 (*Monday, 2/15*)

GTEP5: Game Theory

Oral Presentations

1148

Price of Pareto Optimality in Hedonic Games
Edith Elkind, Angelo Fanelli, Michele Flammini

1567

Graphical Hedonic Games of Bounded Treewidth
Dominik Peters

1209

Blind, Greedy, and Random: Algorithms for Matching and Clustering Using only Ordinal Information
Elliot Anshelevich, Shreyas Sekar

2352

Using the Shapley Value to Analyze Algorithm Portfolios
Alexandre Fréchet, Lars Kotthoff, Tomasz Michalak, Talal Rahwan, Holger H. Hoos, Kevin Leyton-Brown

Poster Spotlight Talks

1858

Complexity of Hedonic Games with Dichotomous Preferences
Dominik Peters

584

Strategy-Based Warm Starting for Regret Minimization in Games
Noam Brown, Tuomas Sandholm

644

Computing Rational Decisions In Extensive Games with Limited Foresight
Paolo Turrini

2245

Counterfactual Regret Minimization in Sequential Security Games
Viliam Lisy, Trevor Davis, Michael Bowling

1092

A Security Game Combining Patrolling and Alarm-Triggered Responses Under Spatial and Detection Uncertainties
Nicola Basilico, Giuseppe De Nittis, Nicola Gatti

2348

Factorization Ranking Model for Move Prediction in the Game of Go
Chenjun Xiao, Martin Müller

2532

Nested Monte Carlo Search for Two-Player Games
Tristan Cazenave, Abdallah Saffidine, Michael Schofield, Michael Thielscher

2:00-3:30 (*Monday, 2/15*)

COG1: Cognitive Systems

Oral Presentations

2169

MIDCA: A Metacognitive, Integrated Dual-Cycle Architecture for Self-Regulated Autonomy
Michael T. Cox, Zohreh Alavi, Dustin Dannenhauer, Vahid B. Eyorokon, Hector Munoz-Avila, Don Perlis

2101

Commonsense Interpretation of Triangle Behavior
Andrew S. Gordon

2159

Surprise-Triggered Reformulation of Design Goals
Kazjon Grace, Mary Lou Maher

189

Visual Learning of Arithmetic Operation
Yedid Hoshen, Shmuel Peleg

Poster Spotlight Talks

1860

Predicting Readers' Sarcasm Understandability by Modeling Gaze Behavior
Abhijit Mishra, Diptesh Kanojia, Pushpak Bhattacharyya

2474

Using Multiple Representations to Simultaneously Learn Computational Thinking and Middle School Science
Satabdi Basu, Gautam Biswas, John Kinnebrew

2703

Modeling Human Ad Hoc Coordination
Peter M. Krafft, Chris L. Baker, Alex "Sandy" Pentland, Joshua B. Tenenbaum

2529

Modeling Human Understanding of Complex Intentional Action with a Bayesian Nonparametric Subgoal Model
Ryo Nakahashi, Chris L. Baker, Joshua B. Tenenbaum

2:00-3:30 (*Monday, 2/15*)

ROB3: RSS Invited, Robotics Fellowship

RSS Invited Talks

Two-Step Focused Inference for Resource-Constrained Collision-Free Navigation
Beipeng Mu, Ali-akbar Agha-mohammadi, Liam Paull, Matthew Graham, Jonathan How, John Leonard

Long-horizon Robotic Search and Classification Using Sampling-Based Motion Planning
Geoff Hollinger

rCRF: Recursive Belief Estimation over CRFs in RGB-D Activity Videos
Ozan Sener, Ashutosh Saxena

Robotics Fellowship Talks

Robotic Nurse in the Operating Room: Conciliating Time with Intention
Tian Zhou

Autonomous Exploration Using UAVs
Sai Vemprala

Knowledge-Enabled Reasoning for Compliant Robotic Manipulation
Daniel Leidner

Object Contact Recognition and Localization by Employing Tactile Patterns, Kinaesthetic Cues and Visual Maps
Shan Luo

Neural Robotics - A New Perspective
Peter Ondruska, Oxford University

2:00-3:05 (*Monday, 2/15*)

IAAI-16: Machine Learning/Data Mining III: Healthcare

Automated Volumetric Intravascular Plaque Classification Using Optical Coherence Tomography (OCT)
Ronny Shalev, Daisuke Nakamura, Setsu Nishino, Andrew M. Rollins, Hiram G. Bezerra, David L. Wilson, Soumya Ray

Deployed: Deploying nEmesis: Preventing Foodborne Illness by Data Mining Social Media

Adam Sadilek, Henry Kautz, Lauren DiPrete, Brian Labus, Eric Portman, Jack Teitel, Vincent Silenzio

3:30-4:00

Coffee Break

4:00-5:00 (*Monday, 2/15*)

AAAI-16 Invited Talk: Nick Bostrom

What We Should Think about Regarding the Future of Machine Intelligence

5:10-6:10 (*Monday, 2/15*)

AAAI-16 Invited Panel: AI's Impact on Labor Markets

Panelists: Nick Bostrom, Erik Brynjolfsson, Oren Etzioni, Moshe Vardi

Moderator: Toby Walsh

5:10 – 6:10 (*Monday, 2/15*)

IAAI-16 Robert S. Engelmore Memorial Award Lecture: Reid G. Smith (i2k Connect)

A Quarter Century of AI Applications: What We Knew Then versus What We Know Now

6:10-6:30 (*Monday, 2/15*)

Video Competition Awards

6:30 - 8:30 (*Monday, 2/15*)

AAAI-16 Poster / Demo Reception 2

All technical spotlight papers presented earlier today will be presented in poster format, as well Student Abstract posters. (A complete list of student abstracts is included in the accepted papers list.) The following demos will also be presented this evening:

2709

Predicting Personal Traits from Facial Images Using Convolutional Neural Networks Augmented with Facial Landmark Information

Yoad Lewenberg, Yoram Bachrach, Sukrit Shankar, Antonio Criminisi

764

EKNOT: Event Knowledge from News and Opinions in Twitter

Min Li, Jingjing Wang, Wenzhu Tong, Hongkun Yu, Xiuli Ma, Yucheng Chen, Haoyan Cai, Jiawei Han

2724

BBookX: Building Online Open Books for Personalized Learning

Chen Liang, Shuting Wang, Zhaohui Wu, Kyle Williams, Bart Pursel, Benjamin Brautigam, Sherwyn Saul, Hannah Williams, Kyle Bowen, C. Lee Giles

2729

Moodee: An Intelligent Mobile Companion for Sensing Your Stress from Social Media Postings

Huijie Lin, Jia Jia, Jie Huang, Enze Zhou, Jingtian Fu, Yejun Liu, Huanbo Luan

1531

An Image Analysis Environment for Species Identification of Food Contaminating Beetles

Daniel Martin, Hongjian Ding, Leihong Wu, Howard Semey, Amy Barnes, Darryl Langley, Su Inn Park, Zhichao Liu, Weida Tong, Joshua Xu

2113

WWDS APIs: Application Programming Interfaces for Efficient Manipulation of World WordNet Database Structure

Hanumant Redkar, Sudha Bhingardive, Kevin Patel, Pushpak Bhattacharyya, Neha Prabhugaonkar, Apurva Nagvenkar, Ramdas Karmali

2720

Artificial Swarm Intelligence, a Human-in-the-loop approach to A.I.

Louis Rosenberg

2734

Toward Interactive Relational Learning

Ryan Rossi, Rong Zhou

516

EDDIE: An Embodied AI System for Research and Intervention for Individuals with ASD

Robert Selkowitz, Jonathan Rodgers, P.J. Moskal, Jon Mrowczynski, Christine Colson

48

A Tool to Graphically Edit CP-nets

Aidan Shafran, Sam Saarinen, Judy Goldsmith

8:00-10:00 (*Monday, 2/15*)

AAAI-16 Games Night

Tuesday, February 16

8:30-8:50

AAAI-16 Conference Awards / Allen AI Science Challenge Award

8:50 - 9:50

IAAI-16 / AAAI-16 Joint Invited Talk: Demis Hassabis

9:50 - 10:00

Transition

10:00-11:00 (*Tuesday, 2/16*)

AAAI-16 Technical Sessions

10:00-11:00 (*Tuesday, 2/16*)

APP5: Biomedical Applications I (focus on Deep Learning)

Oral Presentations

2232

MUST-CNN: A Multilayer Shift-and-Stitch Deep Convolutional Architecture for Sequence-Based Protein Structure Prediction

Zeming Lin, Jack Lanchantin, Yanjun Qi

389

Deep Contextual Networks for Neuronal Structure Segmentation

Hao Chen, Xiaojuan Qi, Jie Zhi Cheng, Pheng-Ann Heng

391

Mitosis Detection in Breast Cancer Histology Images via Deep Cascaded Networks

Hao Chen, Qi Dou, Xi Wang, Jing Qin, Pheng-Ann Heng

Poster Spotlight Talks

52

Learning Deep Convolutional Neural Networks for X-Ray Protein Crystallization Image Analysis

Margot Lisa-Jing Yann, Yichuan Tang

2739

An Efficient Time Series Subsequence Pattern Mining and Prediction Framework with an Application to Respiratory Motion Prediction

Shouyi Wang, Kin Ming Kam, Cao Xiao, Stephen Bowen, W. Chaovallitwongse

550

Seeing the Unseen Network: Inferring Hidden Social Ties from Respondent-Driven Sampling

Lin Chen, Forrest W. Crawford, Amin Karbasi

10:00-11:00 (*Tuesday, 2/16*)

ML17: Bayesian Learning

Oral Presentations

2271

Assumed Density Filtering Methods for Learning Bayesian Neural Networks

Soumya Ghosh, Francesco Maria Delle Fave, Jonathan Yedidia

1193

Preconditioned Stochastic Gradient Langevin Dynamics for Deep Neural Networks

Chunyuan Li, Changyou Chen, David Carlson, Lawrence Carin

2607

Closed-Form Gibbs Sampling for Graphical Models with Algebraic Constraints

Hadi Mohassel Afshar, Scott Sanner, Christfried Webers

Poster Spotlight Talks

1058

Discriminative Nonparametric Latent Feature Relational Models with Data Augmentation

Bei Chen, Ning Chen, Jun Zhu, Jiaming Song, Bo Zhang

458

The Ostomachion Process

Xuhui Fan, Bin Li, Yi Wang, Yang Wang, Fang Chen

2138

Marginalized Continuous Time Bayesian Networks for Network Reconstruction from Incomplete Observations

Lukas Studer, Loic Pauleve, Christoph Zechner, Matthias Reumann, Maria Rodriguez Martinez, Heinz Koeppl

10:00-11:00 (*Tuesday, 2/16*)

Search4: Search and Constraint Satisfaction

Oral Presentations

1736

Increasing Nogoods in Restart-Based Search
Jimmy H. M. Lee, Christian Schulte, Zichen Zhu

1079

On the Extraction of One Maximal Information Subset That Does Not Conflict with Multiple Contexts
Éric Grégoire, Yacine Izza, Jean-Marie Lagniez

1267

Solving the Station Repacking Problem
Alexandre Fréchette, Neil Newman, Kevin Leyton-Brown

Poster Spotlight Talks

1489

Local Search for Hard SAT Formulas: The Strength of the Polynomial Law
Sixue Liu, Periklis A. Papakonstantinou

2385

Exponential Recency Weighted Average Branching Heuristic for SAT Solvers
Jia Hui Liang, Vijay Ganesh, Pascal Poupart, Krzysztof Czarnecki

862

Abstract Zobrist Hashing: An Efficient Work Distribution Method for Parallel Best-First Search
Yuu Jinnai, Alex Fukunaga

10:00-11:00 (*Tuesday, 2/16*)

VIS4: Text and Vision

Oral Presentations

1326

SentiCap: Generating Image Descriptions with Sentiments
Alexander Patrick Mathews, Lexing Xie, Xuming He

1950

Reading Scene Text in Deep Convolutional Sequences
Pan He, Weilin Huang, Yu Qiao, Chen Change Loy, Xiaoou Tang

1247

Creating Images by Learning Image Semantics Using Vector Space Models
Derrall Heath, Dan Ventura

Poster Spotlight Talks

655

Towards Domain Adaptive Vehicle Detection in Satellite Image by Supervised Super-Resolution Transfer
Liujuan Cao, Rongrong Ji, Cheng Wang, Jonathan Li

499

Transductive Zero-Shot Recognition via Shared Model Space Learning
Yuchen Guo, Guiguang Ding, Xiaoming Jin, Jianmin Wang

1255

Exploiting View-Specific Appearance Similarities Across Classes for Zero-Shot Pose Prediction: A Metric Learning Approach
Alina Kuznetsova, Sung Ju Hwang, Bodo Rosenhahn, Leonid Sigal

10:00-11:00 (*Tuesday, 2/16*)

NLP7: Topic Flow

Oral Presentations

744

Topical Analysis of Interactions between News and Social Media
Ting Hua, Yue Ning, Feng Chen, Chang-Tien Lu, Naren Ramakrishnan

1561

Tracking Idea Flows between Social Groups
Yangxin Zhong, Shixia Liu, Xiting Wang, Jiannan Xiao, Yangqiu Song

1201

Modeling Evolving Relationships between Characters in Literary Novels
Snigdha Chaturvedi, Shashank Srivastava, Hal Daume III, Chris Dyer

Poster Spotlight Talks

405

Identifying Search Keywords for Finding Relevant Social Media Posts
Shuai Wang, Zhiyuan Chen, Bing Liu, Sherry Emery

2595

MOOCs Meet Measurement Theory: A Topic-Modelling Approach
Jiazhen He, Benjamin I. P. Rubinstein, James Bailey, Rui Zhang, Sandra Milligan, Jeffrey Chan

1308

Temporal Topic Analysis with Endogenous and Exogenous Processes
Baiyang Wang, Diego Klabjan

10:00-11:00 (*Tuesday, 2/16*)

MAS2: Agent-Based Simulation and Multiagent Planning

Oral Presentations

1910

Efficient Computation of Emergent Equilibrium in Agent-Based Simulation
Zehong Hu, Meng Sha, Moath Jarrah, Jie Zhang, Hui Xi

953

Emergence of Social Punishment and Cooperation through Prior Commitments
The Anh Han

2380

Implicit Coordination in Crowded Multi-Agent Navigation
Julio Godoy, Ioannis Karamouzas, Stephen J. Guy, Maria Gini

Poster Spotlight Talks

1918

Online Spatio-Temporal Matching in Stochastic and Dynamic Domains
Meghna Lowalekar, Pradeep Varakantham, Patrick Jaillet

527

Finding One's Best Crowd: Online Learning by Exploiting Source Similarity
Yang Liu, Mingyan Liu

659

Submodular Optimization with Routing Constraints
Haifeng Zhang, Yevgeniy Vorobeychik

10:00-11:00 (*Tuesday, 2/16*)

AIW4: Information Retrieval

Oral Presentations

939

Indexable Probabilistic Matrix Factorization for Maximum Inner Product Search

Marco Fraccaro, Ulrich Paquet, Ole Winther

1004

Affinity Preserving Quantization for Hashing: A Vector Quantization Approach to Learning Compact Binary Codes

Zhe Wang, Ling-Yu Duan, Tiejun Huang, Wen Gao

252

Learning Cross-Domain Neural Networks for Sketch-Based 3D Shape Retrieval

Fan Zhu, Jin Xie, Yi Fang

Poster Spotlight Talks

469

Improving Recommendation of Tail Tags for Questions in Community Question Answering

Yu Wu, Wei Wu, Xiang Zhang, Zhoujun Li, Ming Zhou

602

Linear Submodular Bandits with a Knapsack Constraint

Baosheng Yu, Meng Fang, Dacheng Tao

2475

Scientific Ranking over Heterogeneous Academic Hypernetwork

Ronghua Liang, Xiaorui Jiang

10:00-11:00 (*Tuesday, 2/16*)

IAAI-16: Cyber Security and Ontology I: Manufacturing

Data Driven Game Theoretic Cyber Threat Mitigation

John Robertson, Vivin Paliath, Jana Shakarian, Amanda Thart, Paulo Shakarian

Automated Capture and Execution of Manufacturability Rules Using Inductive Logic Programming

Abha Moitra, Ravi Palla, Arvind Rangarajan

11:00-11:30

Coffee Break

11:30-12:30 (*Tuesday, 2/16*)

AAAI-16 Technical Sessions

11:30-12:30 (*Tuesday, 2/16*)

APP6: Biomedical Applications II

Oral Presentations

2389

Extracting Biomolecular Interactions Using Semantic Parsing of Biomedical Text

Sahil Garg, Aram Galstyan, Ulf Hermjakob, Daniel Marcu

243

Extracting Topical Phrases from Clinical Documents

Yulan He

1438

Learning Adaptive Forecasting Models from Irregularly Sampled Multivariate Clinical Data
Zitao Liu, Milos Hauskrecht

Poster Spotlight Talks

2084

Drosophila Gene Expression Pattern Annotations via Multi-Instance Biological Relevance Learning
Hua Wang, Cheng Deng, Hao Zhang, Xinbo Gao, Heng Huang

164

Predicting ICU Mortality Risk by Grouping Temporal Trends from a Multivariate Panel of Physiologic Measurements
Yuan Luo, Yu Xin, Rohit Joshi, Leo Celi, Peter Szolovits

2004

Learning a Hybrid Architecture for Sequence Regression and Annotation
Yizhe Zhang, Ricardo Henao, Lawrence Carin, Jianling Zhong, Alexander J. Hartemink

11:30-12:30 (*Tuesday, 2/16*)

ML18: Learning under Noise

Oral Presentations

506

Noise-Adaptive Margin-Based Active Learning and Lower Bounds under Tsybakov Noise Condition
Yining Wang, Aarti Singh

2061

Risk Minimization in the Presence of Label Noise
Wei Gao, Lu Wang, Yu-Feng Li, Zhi-Hua Zhou

1840

Learning with Marginalized Corrupted Features and Labels Together
Yingming Li, Ming Yang, Zenglin Xu, Zhongfei (Mark) Zhang

Poster Spotlight Talks

721

Fast and Accurate Refined Nystrom Based Kernel SVM
Zhe Li, Tianbao Yang, Lijun Zhang, Rong Jin

2114

Linear-Time Learning on Distributions with Approximate Kernel Embeddings
Dougal J. Sutherland, Junier B. Oliva, Barnabas Poczos, Jeff Schneider

347

Common and Discriminative Subspace Kernel-Based Multiblock Tensor Partial Least Squares Regression
Ming Hou, Qibin Zhao, Brahim Chaib-draa, Andrzej Cichocki

11:30-12:30 (*Tuesday, 2/16*)

PS2: Partial Observability

Oral Presentations

271

Solving Risk-Sensitive POMDPs with and without Cost Observations
Ping Hou, William Yeoh, Pradeep Varakantham

2337

RAO*: An Algorithm for Chance-Constrained POMDP's

Pedro Henrique Rodrigues Quemel e Assis Santana, Sylvie Thiébaux, Brian Williams

50

Computing Contingent Plans Using Online Replanning
Guy Shani, Radimir Komarnitsky

Poster Spotlight Talks

512

Goal Recognition Design with Non-Observable Actions
Sarah Keren, Avigdor Gal, Erez Karpas

683

A Symbolic SAT-Based Algorithm for Almost-sure Reachability with Small Strategies in POMDPs
Krishnendu Chatterjee, Martin Chmelík, Jessica Davies

2279

Learning for Decentralized Control of Multiagent Systems in Large, Partially-Observable Stochastic Environments

Miao Liu, Christopher Amato, Emily P. Anesta, J. Daniel Griffith, Jonathan P. How

11:30-12:30 (*Tuesday, 2/16*)

VIS5: Visual Intepretation

Oral Presentations

2074

Metric Embedded Discriminative Vocabulary Learning for High-Level Person Representation
Yang Yang, Zhen Lei, Shifeng Zhang, Hailin Shi, Stan Z. Li

1049

Learning to Appreciate the Aesthetic Effects of Clothing
Jia Jia, Jie Huang, Guangyao Shen, Tao He, Zhiyuan Liu, Huanbo Luan, Chao Yan

2078

Toward a Taxonomy and Computational Models of Abnormalities in Images
Babak Saleh, Ahmed Elgammal, Jacob Feldman, Ali Farhadi

Poster Spotlight Talks

326

Co-occurrence Feature Learning for Skeleton Based Action Recognition Using Regularized Deep LSTM Networks

Wentao Zhu, Cuiling Lan, Junliang Xing, Wenjun Zeng, Yanghao Li, Li Shen, Xiaohui Xie

653

Towards Optimal Binary Code Learning via Ordinal Embedding
Hong Liu, Rongrong Ji, Yongjian Wu, Wei Liu

11:30-12:30 (*Tuesday, 2/16*)

NLP8: Learning Representations for Language

Oral Presentations

906

ExTaSem! Extending, Taxonomizing and Semantifying Domain Terminologies
Luis Espinosa-Anke, Horacio Saggion, Francesco Ronzano, Roberto Navigli

1548

A Representation Learning Framework for Multi-Source Transfer Parsing
Jiang Guo, Wanxiang Che, David Yarowsky, Haifeng Wang, Ting Liu

2386

Addressing a Question Answering Challenge by Combining Statistical Methods with Inductive Rule Learning and Reasoning
Arindam Mitra, Chitta Baral

11:30-12:30 (Tuesday, 2/16)

Search5: Optimization II

Oral Presentations

766

Learning to Branch in Mixed Integer Programming
Elias B. Khalil, Pierre Le Bodic, Le Song, George Nemhauser, Bistra Dilkina

1743

The Complexity Landscape of Decompositional Parameters for ILP
Robert Ganian, Sebastian Ordyniak

2060

Exact Sampling with Integer Linear Programs and Random Perturbations
Carolyn Kim, Ashish Sabharwal, Stefano Ermon

Poster Spotlight Talks

1912

Fast Nonsmooth Regularized Risk Minimization with Continuation
Shuai Zheng, Ruiliang Zhang, James T. Kwok

1289

Linearized Alternating Direction Method with Penalization for Nonconvex and Nonsmooth Optimization
Yiyang Wang, Risheng Liu, Xiaoliang Song, Zhixun Su

2498

Delay-Tolerant Online Convex Optimization: Unified Analysis and Adaptive-Gradient Algorithms
Pooria Joulani, Andras Gyorgy, Csaba Szepesvari

11:30-12:30 (Tuesday, 2/16)

CSUST1: Sustainability: Energy, Nature and Climate

Oral Presentations

1189

Energy- and Cost-Efficient Pumping Station Control
Timon V. Kanters, Frans A. Oliehoek, Michael Kaisers, Stan R. van den Bosch, Joep Grispén, Jeroen Hermans

545

Preventing Illegal Logging: Simultaneous Optimization of Resource Teams and Tactics for Security
Sara Mc Carthy, Milind Tambe, Christopher Kiekintveld, Meredith L. Gore, Alex Killion

912

Multi-Instance Multi-Label Class Discovery: A Computational Approach for Assessing Bird Biodiversity
Forrest Briggs, Xiaoli Z. Fern, Raviv Raich, Matthew Betts

Poster Spotlight Talks

1100

Big-Data Mechanisms and Energy-Policy Design
Ankit Pat, Kate Larson, Srinivasen Keshav

1686

An Axiomatic Framework for Ex-Ante Dynamic Pricing Mechanisms in Smart Grid
Sambaran Bandyopadhyay, Ramasuri Narayanam, Pratyush Kumar, Sarvapali Ramchurn, Vijay Arya,
Iskandarbin Petra

11:30-12:00 (*Tuesday, 2/16*)

What's Hot Talks 2 (15 minutes each)

ICCV 2015
Greg Hager

ICRA 2015
Nancy Amato

Angry Birds Competition
Jochen Renz

11:30-12:05 (*Tuesday, 2/16*)

IAAI-16: Ontology II: Automotive

Deployed: Ontology Re-Engineering: A Case Study from the Automotive Industry

Nestor Rychtyckyj, Venkatesh Raman, Baskaran Sankaranarayanan, P Sreenivasa Kumar, Deepak Khemani

12:30-2:00

Lunch Break (Lunch with a Fellow-offsite)

2:00-3:30 (*Tuesday, 2/16*)

AAAI-16 Technical Sessions

2:00-3:30 (*Tuesday, 2/16*)

ML19: Reinforcement Learning I

Oral Presentations

325

Efficient Average Reward Reinforcement Learning Using Constant Shifting Values
Shangdong Yang, Yang Gao, Bo An, Hao Wang, Xingguo Chen

2253

Distance Minimization for Reward Learning from Scored Trajectories
Benjamin Burchfiel, Carlo Tomasi, Ronald Parr

2053

Compressed Conditional Mean Embeddings for Model-Based Reinforcement Learning
Guy Lever, John Shawe-Taylor, Ronnie Stafford, Csaba Szepesvari

1645

Inverse Reinforcement Learning through Policy Gradient Minimization
Matteo Pirotta, Marcello Restelli

Poster Spotlight Talks

1735

Algorithms for Differentially Private Multi-Armed Bandits
Aristide C. Y. Tossou, Christos Dimitrakakis

2355

Efficient PAC-Optimal Exploration in Concurrent, Continuous State MDPs with Delayed Updates
Jason Pavis, Ronald Parr

535

Bounded Optimal Exploration in MDP

Kenji Kawaguchi

1625

Sparse Latent Space Policy Search

Kevin Sebastian Luck, Joni Pajarinen, Erik Berger, Ville Kyrki, Heni Ben Amor

1204

Improving Predictive State Representations via Gradient Descent

Nan Jiang, Alex Kulesza, Satinder Singh

679

Reinforcement Learning with Parameterized Actions

Warwick Masson, Pravesh Ranchod, George Konidaris

2185

Incremental Stochastic Factorization for Online Reinforcement Learning

Andre M. S. Barreto, Rafael L. Beirigo, Joelle Pineau, Doina Precup

2572

Gaussian Process Planning with Lipschitz Continuous Reward Functions: Towards Unifying Bayesian Optimization, Active Learning, and Beyond

Chun Kai Ling, Kian Hsiang Low, Patrick Jaillet

2:00-3:30 (*Tuesday, 2/16*)

ML20: Deep Learning II (NLP)

Oral Presentations

779

Shakeout: A New Regularized Deep Neural Network Training Scheme

Guoliang Kang, Jun Li, Dacheng Tao

73

Toward a Better Understanding of Deep Neural Network Based Acoustic Modelling: An Empirical Investigation

Xingfu Wang, Lin Wang, Jing Chen, Litao Wu

722

Character-Aware Neural Language Models

Yoon Kim, Yacine Jernite, David Sontag, Alexander M. Rush

682

Learning to Answer Questions from Image Using Convolutional Neural Network

Lin Ma, Zhengdong Lu, Hang Li

Poster Spotlight Talks

70

What Happens Next? Event Prediction Using a Compositional Neural Network Model

Mark Granroth-Wilding, Stephen Clark

240

A Deep Architecture for Semantic Matching with Multiple Positional Sentence Representations

Shengxian Wan, Yanyan Lan, Jiafeng Guo, Jun Xu, Liang Pang, Xueqi Cheng

526

Morphological Segmentation with Window LSTM Neural Networks

Linlin Wang, Zhu Cao, Yu Xia, Gerard de Melo

1279

Siamese Recurrent Architectures for Learning Sentence Similarity

Jonas Mueller, Aditya Thyagarajan

670

A Morphology-Aware Network for Morphological Disambiguation

Eray Yildiz, Caglar Tirkaz, H. Bahadır Sahin, Mustafa Tolga Eren, Omer Ozan Sonmez

2412

All-in Text: Learning Document, Label, and Word Representations Jointly

Jinseok Nam, Eneldo Loza Mencía, Johannes Fürnkranz

2183

Joint Word Representation Learning Using a Corpus and a Semantic Lexicon

Danushka Bollegala, Alsuhaibani Mohammed, Takanori Maehara, Ken-ichi Kawarabayashi

2:00-3:30 (*Tuesday, 2/16*)

ML21: Learning, Teaching, and Evaluating

Oral Presentations

1751

Multi-Objective Self-Paced Learning

Hao Li, Maoguo Gong, Deyu Meng, Qiguang Miao

2124

Selecting Near-Optimal Learners via Incremental Data Allocation

Ashish Sabharwal, Horst Samulowitz, Gerald Tesauro

1

Exploiting an Oracle That Reports AUC Scores in Machine Learning Contests

Jacob Whitehill

71

Teaching-to-Learn and Learning-to-Teach for Multi-Label Propagation

Chen Gong, Dacheng Tao, Jie Yang, Wei Liu

Poster Spotlight Talks

740

Online Instrumental Variable Regression with Applications to Online Linear System Identification

Arun Venkatraman, Wen Sun, Martial Hebert, J. Andrew Bagnell, Byron Boots

1613

Unsupervised Feature Selection on Networks: A Generative View

Xiaokai Wei, Bokai Cao, Philip S. Yu

2657

New l_1 -Norm Relaxations and Optimizations for Graph Clustering

Feiping Nie, Hua Wang, Cheng Deng, Xinbo Gao, Xuelong Li, Heng Huang

834

Decentralized Approximate Bayesian Inference for Distributed Sensor Network

Behnam Gholami, Sejong Yoon, Vladimir Pavlovic

1268

Uncertainty Propagation in Long-Term Structured Regression on Evolving Networks

Djordje Gligorijevic, Jelena Stojanovic, Zoran Obradovic

1019

Efficient Nonparametric Subgraph Detection Using Tree Shaped Priors

Nannan Wu, Feng Chen, Jianxin Li, Baojian Zhou, Naren Ramakrishnan

2:00-3:30 (*Tuesday, 2/16*)

VIS6: Image Recognition and Retrieval

Oral Presentations

463

Face Model Compression by Distilling Knowledge from Neurons
Ping Luo, Zhenyao Zhu, Ziwei Liu, Xiaogang Wang, Xiaoou Tang

81

Deep Quantization Network for Efficient Image Retrieval
Yue Cao, Mingsheng Long, Jianmin Wang, Han Zhu, Qingfu Wen

1370

Representing Sets of Instances for Visual Recognition
Jianxin Wu, Bin-Bin Gao, Guoqing Liu

1706

Understanding Emerging Spatial Entities
Jinyoung Yeo, Jin-woo Park, Seung-won Hwang

Poster Spotlight Talks

1020

Discrete Image Hashing Using Large Weakly Annotated Photo Collections
Hanwang Zhang, Na Zhao, Xindi Shang, Huanbo Luan, Tat-seng Chua

742

Building a Large Scale Dataset for Image Emotion Recognition: The Fine Print and the Benchmark
Quanzeng You, Jiebo Luo, Hailin Jin, Jianchao Yang

693

Joint Multi-View Representation Learning and Image Tagging
Zhe Xue, Guorong Li, Qingming Huang

1779

On the Performance of GoogLeNet and AlexNet Applied to Sketches
Pedro Ballester, Ricardo Matsumura Araujo

904

Supervised Hashing via Uncorrelated Component Analysis
SungRyull Sohn, Hyunwoo Kim, Junmo Kim

84

Column Sampling Based Discrete Supervised Hashing
Wang-Cheng Kang, Wu-Jun Li, Zhi-Hua Zhou

1146

Online Cross-Modal Hashing for Web Image Retrieval
Liang Xie, Jialie Shen, Lei Zhu

2:00-3:30 (*Tuesday, 2/16*)

ML22: Classification

Oral Presentations

874

Multi-Label Manifold Learning
Peng Hou, Xin Geng, Min-Ling Zhang

1511

Metric Learning for Ordinal Data

Yuan Shi, Wenzhe Li, Fei Sha

451

A Scalable and Extensible Framework for Superposition-Structured Models
Shenjian Zhao, Cong Xie, Zhihua Zhang

864

Sparse Perceptron Decision Tree for Millions of Dimensions
Weiwei Liu, Ivor W. Tsang

Poster Spotlight Talks

2022

Group and Graph Joint Sparsity for Linked Data Classification
Longwen Gao, Shuigeng Zhou

1188

Uncorrelated Group LASSO
Deguang Kong, Ji Liu, Bo Liu, Xuan Bao

1828

Learning Sparse Confidence-Weighted Classifier on Very High Dimensional Data
Mingkui Tan, Yan Yan, Li Wang, Anton Van Den Hengel, Ivor W. Tsang, Qinfeng (Javen) Shi

504

Co-Regularized PLSA For Multi-Modal Learning
Xin Wang, Ming-Ching Chang, Yiming Ying, Siwei Lyu

1487

Optimizing Multivariate Performance Measures from Multi-View Data
Jim Jing-Yan Wang, Ivor Wai-Hung Tsang, Xin Gao

605

Constrained Submodular Minimization for Missing Labels and Class Imbalance in Multi-Label Learning
Baoyuan Wu, Siwei Lyu, Bernard Ghanem

1517

Veto-Consensus Multiple Kernel Learning
Yuxun Zhou, Ninghang Hu, Costas J. Spanos

2:00-3:30 (*Tuesday, 2/16*)

GTEP6: Social Choice I

Oral Presentations

349

When Can the Maximin Share Guarantee Be Guaranteed?
David Kurokawa, Ariel D. Procaccia, Junxing Wang

952

Multiwinner Analogues of the Plurality Rule: Axiomatic and Algorithmic Perspectives
Piotr Faliszewski, Piotr Skowron, Arkadii Slinko, Nimrod Talmon

97

An Algorithmic Framework for Strategic Fair Division
Simina Brânzei, Ioannis Caragiannis, David Kurokawa, Ariel D. Procaccia

661

Multi-Attribute Proportional Representation
Jerome Lang, Piotr Krzysztof Skowron

Poster Spotlight Talks

928

Complexity of Shift Bribery in Committee Elections

Robert Brederick, Piotr Faliszewski, Rolf Niedermeier, Nimrod Talmon

1545

Preferences Single-Peaked on Nice Trees

Dominik Peters, Edith Elkind

1082

Reinstating Combinatorial Protections for Manipulation and Bribery in Single-Peaked and Nearly Single-Peaked Electorates

Vijay Menon, Kate Larson

2282

Quantitative Extensions of the Condorcet Jury Theorem with Strategic Agents

Lirong Xia

1421

Frugal Bribery in Voting

Palash Dey, Neeldhara Misra, Y. Narahari

2:00-3:30 (*Tuesday, 2/16*)

CSUST2: Sustainability: Social and Health

Oral Presentations

1759

Benders Decomposition for Large-Scale Prescriptive Evacuations

Julia Romanski, Pascal Van Hentenryck

1248

Topic Models to Infer Socio-Economic Maps

Lingzi Hong, Enrique Frias-Martinez, Vanessa Frias-Martinez

1671

Transfer Learning from Deep Features for Remote Sensing and Poverty Mapping

Michael Xie, Neal Jean, Marshall Burke, David Lobell, Stefano Ermon

1993

Optimizing Infrastructure Enhancements for Evacuation Planning

Kunal Kumar, Julia Romanski, Pascal Van Hentenryck

Poster Spotlight Talks

1491

Achieving Stable and Fair Profit Allocation with Minimum Subsidy in Collaborative Logistics

Lucas Agussurja, Hoong Chuin Lau, Shih-Fen Cheng

2000

Predicting Spatio-Temporal Propagation of Seasonal Influenza Using Variational Gaussian Process Regression

Ransalu Senanayake, Simon O'Callaghan, Fabio Ramos

2626

Shortest Path Based Decision Making Using Probabilistic Inference

Akshat Kumar

1938

An Algorithm to Coordinate Measurements Using Stochastic Human Mobility Patterns in Large-Scale Participatory Sensing Settings

Alexandros Zenonos, Sebastian Stein, Nicholas R. Jennings

1907

A Unifying Variational Inference Framework for Hierarchical Graph-Coupled HMM with an Application to Influenza Infection

Kai Fan, Chunyuan Li, Katherine Heller

34

Intelligent Habitat Restoration under Uncertainty

Tommaso Urli, Jana Brotánková, Philip Kilby, Pascal Van Hentenryck

2487

Adaptable Regression Method for Ensemble Consensus Forecasting

John K. Williams, Peter P. Neilley, Joseph P. Koval, Jeff McDonald

582

Spatially Regularized Streaming Sensor Selection

Changsheng Li, Fan Wei, Weishan Dong, Xiangfeng Wang, Junchi Yan, Xiaobin Zhu, Qingshan Liu, Xin Zhang

2:00-3:30 (*Tuesday, 2/16*)

Senior Member Talks 2

Blue Sky Talk

2752

Ethical Dilemmas for Adaptive Persuasion Systems

Oliviero Stock, Marco Guerini, Fabio Pianesi

Summary Talks

2762

Ontology Instance Linking: Towards Interlinked Knowledge Graphs

Jeff Heflin, Dezhao Song

2756

Natural Language Processing for Enhancing Teaching and Learning

Diane Litman

2754

Strategic Behaviour When Allocating Indivisible Goods

Toby Walsh

2721

Rational Verification: From Model Checking to Equilibrium Checking

Michael Wooldridge, Julian Gutierrez, Paul Harrenstein, Enrico Marchioni, Giuseppe Perelli, Alexis Toumi

3:30-4:00

Coffee Break

4:00-5:00 (*Tuesday, 2/16*)

AAAI-16 Invited Panel: Autonomous Flight

Panelists: Mykel Kochenderfer (cochair), Ella Atkins (cochair), Amy Pritchett, Claire Tomlin, Jonathan How

4:00-5:00 (*Tuesday, 2/16*)

AAAI-16 Technical Sessions

4:00-5:00 (*Tuesday, 2/16*)

NLP9: Ordered Language Phenomena

Oral Presentations

1198

Tweet Timeline Generation with Determinantal Point Processes

Jin-ge Yao, Feifan Fan, Wayne Xin Zhao, Xiaojun Wan, Edward Chang, Jianguo Xiao

1280

Listen, Attend, and Walk: Neural Mapping of Navigational Instructions to Action Sequences

Hongyuan Mei, Mohit Bansal, Matthew R. Walter

1609

Jointly Modeling Topics and Intents with Global Order Structure

Bei Chen, Jun Zhu, Nan Yang, Tian Tian, Ming Zhou, Bo Zhang

Poster Spotlight Talks

772

Syntactic Skeleton-Based Translation

Tong Xiao, Jingbo Zhu, Chunliang Zhang, Tongran Liu

425

Joint Word Segmentation, POS-Tagging and Syntactic Chunking

Chen Lyu, Yue Zhang, Donghong Ji

2467

Labeling the Semantic Roles of Commas

Naveen Arivazhagan, Christos Christodoulopoulos, Dan Roth

4:00-5:00 (*Tuesday, 2/16*)

KRR5: Action

Oral Presentations

1075

Decidable Verification of Golog Programs over Non-Local Effect Actions

Benjamin Zarrieß, Jens Claßen

1939

Continual Planning in Golog

Till Hofmann, Tim Niemueller, Jens Claßen, Gerhard Lakemeyer

2569

Mapping Action Language BC to Logic Programs: A Characterization by Postulates

Haodi Zhang, Fangzhen Lin

Poster Spotlight Talks

294

Verifying ConGolog Programs on Bounded Situation Calculus Theories

Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi, Sebastian Sardina

1135

Verb Pattern: A Probabilistic Semantic Representation on Verbs

Wanyun Cui, Xiyong Zhou, Hangyu Lin, Yanghua Xiao, Haixun Wang, Seung-won Hwang, Wei Wang

4:00-4:45 (*Tuesday, 2/16*)

What's Hot Talks 3 (15 minutes each)

Robocup Competitions

Peter Stone

General Video Game AI Competition

Diego Perez

AAMAS 2015
Maria Gini

5:00-5:10
Transition

5:10-6:10 (*Tuesday, 2/16*)
AAAI Community Meeting

6:30-8:30 (*Tuesday, 2/16*)
AAAI-16 Poster / Demo Reception 3

All technical spotlight papers presented earlier today will be presented in poster format. The following demos will also be presented this evening:

2726
Jikan to Kukan: A Hands-On Musical Experience in AI, Games and Art
Georgia Rossmann Martins, Mário Escarce Junior, Leandro Soriano Marcolino

2745
Modeling and Experimentation Framework for Fuzzy Cognitive Maps
Maikel Leon Espinosa, Gonzalo Napoles Ruiz

2447
A Visual Semantic Framework for Innovation Analytics
Walid Shalaby, Kripa Rajshekhar, Wlodek Zadrozny

1525
Write-righter: An Academic Writing Assistant System
Yuanhao Liu, Xin Wang, Ming Liu, Xiaolong Wang

1331
A Fraud Resilient Medical Insurance Claim System
Yuliang Shi, Chenfei Sun, Qingzhong Li, Lizhen Cui, Han Yu, Chunyan Miao

995
Shoot to Know What: An Application of Deep Networks on Mobile Devices
Jiaxiang Wu, Qinghao Hu, Cong Leng, Jian Cheng

2730
SAPE: A System for Situation-Aware Public Security Evaluation
Shu Wu, Qiang Liu, Ping Bai, Liang Wang, Tieniu Tan

2155
SVVAMP: Simulator of Various Voting Algorithms in Manipulating Populations
François Durand, Fabien Mathieu, Ludovic Noirie

2731
Information Credibility Evaluation on Social Media
Shu Wu, Qiang Liu, Yong Liu, Liang Wang, Tieniu Tan

Wednesday, February 17

8:50 - 9:50
AAAI-16 Invited Talk: Claire Tomlin
Reachability and Learning for Hybrid Systems

9:50 - 10:00
Transition

10:00-10:54 (Wednesday, 2/17)

AAAI-16 Technical Sessions

10:00-10:54 (Wednesday, 2/17)

ML23: Reinforcement Learning II

Oral Presentations

662

Model-Free Preference-Based Reinforcement Learning
Christian Wirth, Johannes Fürnkranz, Gerhard Neumann

1452

Truncated Approximate Dynamic Programming with Task-Dependent Terminal Value
Amir-massoud Farahmand, Daniel N. Nikovski, Yuji Igarashi, Hiroki Konaka

1283

Offline Evaluation of Online Reinforcement Learning Algorithms
Travis Mandel, Yun-En Liu, Emma Brunskill, Zoran Popović

10:00-10:54 (Wednesday, 2/17)

ML24: Dimensionality Reduction

Oral Presentations

513

Nonlinear Feature Extraction with Max-Margin Data Shifting
Jianqiao Wangni, Ning Chen

2260

Multitask Generalized Eigenvalue Program
Boyu Wang, Joelle Pineau, Borja Balle

1057

Reduction Techniques for Graph-Based Convex Clustering
Lei Han, Yu Zhang

10:00-10:54 (Wednesday, 2/17)

KRR6: Languages and Complexity

Oral Presentations

2019

The Complexity of LTL on Finite Traces: Hard and Easy Fragments
Valeria Fionda, Gianluigi Greco

508

SDDs Are Exponentially More Succinct than OBDDs
Simone Bova

2381

Zero-Suppressed Sentential Decision Diagrams
Masaaki Nishino, Norihito Yasuda, Shin-ichi Minato, Masaaki Nagata

10:00-10:54 (Wednesday, 2/17)

INT1: Integrated AI Capabilities

Oral Presentations

509

A Framework for Resolving Open-World Referential Expressions in Distributed Heterogeneous Knowledge Bases
Tom Williams, Matthias Scheutz

1187

Affective Personalization of a Social Robot Tutor for Children's Second Language Skills
Goren Gordon, Samuel Spaulding, Jacqueline Kory Westlund, Jin Joo Lee, Luke Plummer, Marayna Martinez, Madhurima Das, Cynthia Breazeal

259

Bagging Ensembles for the Diagnosis and Prognostication of Alzheimer's Disease
Peng Dai, Femida Gwadry-Sridhar, Michael Bauer, Michael Borrie

10:00-10:45 (*Wednesday, 2/17*)

What's Hot Talks 4 (15 minutes each)

Planning Competition
Antonin Komenda

ASP Competition
Mario Alviano

SoCS 2015
Roni Stern

10:54-11:30

Coffee Break

11:30-12:42 (*Wednesday, 2/17*)

AAAI-16 Technical Sessions

11:30-12:42 (*Wednesday, 2/17*)

ML25: Reinforcement Learning III

Oral Presentations

2695

Randomised Procedures for Initialising and Switching Actions in Policy Iteration
Shivaram Kalyanakrishnan, Neeldhara Misra, Aditya Gopalan

734

Increasing the Action Gap: New Operators for Reinforcement Learning
Marc G. Bellemare, Georg Ostrovski, Arthur Guez, Philip S. Thomas, Remi Munos

626

Generalized Emphatic Temporal Difference Learning: Bias-Variance Analysis
Assaf Hallak, Aviv Tamar, Remi Munos, Shie Mannor

1813

Deep Reinforcement Learning with Double Q-Learning
Hado van Hasselt, Arthur Guez, David Silver

11:30-12:42 (*Wednesday, 2/17*)

ML26: Auto-Encoders

Oral Presentations

309

Consensus Style Centralizing Auto-encoder for Weak Style Classification
Shuhui Jiang, Ming Shao, Chengcheng Jia, Yun Fu

738

Semisupervised Autoencoder for Sentiment Analysis
Shuangfei Zhai, Zhongfei (Mark) Zhang

354

Spectral Bisection Tree Guided Deep Adaptive Exemplar Autoencoder for Unsupervised Domain Adaptation
Ming Shao, Zhengming Ding, Handong Zhao, Yun Fu

2086

The $l_{2,1}$ -Norm Stacked Robust Autoencoders for Domain Adaptation
Wenhao Jiang, Hongchang Gao, Fu-lai Chung, Heng Huang

11:30-12:42 (Wednesday, 2/17)

GTEP7: Social Choice II

Oral Presentations

335

Optimal Aggregation of Uncertain Preferences
Ariel D. Procaccia, Nisarg Shah

2246

Judgment Aggregation under Issue Dependencies
Marco Costantini, Carla Groenland, Ulle Endriss

1755

Agenda Separability in Judgment Aggregation
Jérôme Lang, Marija Slavkovic, Srdjan Vesic

1258

Rules for Choosing Societal Tradeoffs
Vincent Conitzer, Rupert Freeman, Markus Brill, Yuqian Li

11:30-12:42 (Wednesday, 2/17)

CSUST3: Sustainability: Traffic, Algorithms

Oral Presentations

2040

Robust Decision Making for Stochastic Network Design
Akshat Kumar, Arambam James Singh, Pradeep Varakantham, Daniel Sheldon

1085

Optimizing Resilience in Large Scale Networks
Xiaojian Wu, Daniel Sheldon, Shlomo Zilberstein

1302

Understanding City Traffic Dynamics Utilizing Sensor and Textual Observations
Pramod Anantharam, Krishnaprasad Thirunarayan, Surendra Marupudi, Amit Sheth, Tanvi Banerjee

1546

Multiagent-Based Route Guidance for Increasing the Chance of Arrival on Time
Zhiguang Cao, Hongliang Guo, Jie Zhang, Ulrich Fastenrath