Start	Duration		Title	Paper ID	Authors	Discussant
			Monday, April 11			
7:30 AM	1:00		Breakfast			
8:15 AM	0:15		Organizers' Welcome		**Session chair: organizers**	
8:30 AM	1:00	**Invited Talk**	Sparse modeling: some unifying theory and “topic-imaging”		Bin Yu	
		Session	**Sparsity**		**Session chair: Brendan McMahan**	
9:30 AM	0:35	**Notable Paper**	Learning Scale Free Networks by Reweighted L1 regularization	167	Qiang Liu, UC, Irvine; Alexander Ihler, UC, Irvine	Deepak Agarwal
10:05 AM	0:25		A Fast Algorithm for Recovery of Jointly Sparse Vectors based on the Alternating Direction Methods	139	Hongtao Lu, Shanghai Jiao Tong University; Xianzhong Long, Shanghai Jiao Tong University; Jingyuan Lv, Shanghai Jiao Tong University	
10:30 AM	0:30	**Break**	Break (coffee, tea)			
		Session	**Graphical models and inference I**		**Session chair: Adrian Dobra**	
11:00 AM	0:35	**Notable Paper**	A conditional game for comparing approximations	189	Frederik Eaton, University of Cambridge	Vincent Conitzer
11:35 AM	0:25		On the Estimation of alpha-Divergences	34	Barnabas Poczos, Carnegie Mellon University; Jeff Schneider, Carnegie Mellon University	
12:00 PM	0:25		Mixed Cumulative Distribution Networks	158	Ricardo Silva; Charles Blundell, Gatsby Unit, UCL; Yee Whye Teh, Gatsby Computational Neuroscience Unit, UCL	
12:25 PM		**Break**	Break (lunch on own and afternoon off)			
		Session	**Graphical models and inference II**		**Session chair: Pradeep Ravikumar**	
5:00 PM	0:35	**Notable Paper**	Learning equivalence classes of directed acyclic latent variable models from multiple datasets with overlapping variables	102	Robert Tillman, Carnegie Mellon University; Peter Spirtes, Carnegie Mellon University	Jiji Zhang and Ricardo Silva
5:35 PM	0:25		Asymptotic Theory for Linear-Chain Conditional Random Fields	128	Mathieu Sinn, University of Waterloo; Pascal Poupart,	
6:00 PM						
6:00 PM	0:25		Concave Gaussian Variational Approximations for Inference in Large-Scale Bayesian Linear Models	173	Edward Challis, University College London; David Barber,	
6:25 PM		**Break**	Break (dinner on own)			
8:00 PM	3:00		**Poster Session I**			
11:00 PM			hors d'oeuvres and cash bar			
			Tuesday, April 12			
7:30 AM	1:00		Breakfast			
8:15 AM	1:00	**Invited Talk**	Multi-way Gaussian Graphical Models with Application to Multivariate Lattice Data		**Session chair: Neil Lawrence** Adrian Dobra	
		Session	**Relational learning**		**Session chair: David Wingate**	
9:15 AM	0:25		TopicFlow Model: Unsupervised Learning of Topic-specific Influences of Hyperlinked Documents	19	Ramesh Nallapati, Stanford University; Christopher Manning, Stanford University	
9:40 AM	0:25		Relational Learning with One Network: An Asymptotic Analysis	269	Rongjing Xiang, Purdue University; Jennifer Neville, Purdue University	
10:05 AM	0:30	**Break**	Break (coffee, tea)			
		Session	**Bayesian nonparametrics and MCMC**		**Session chair: Lawrence Carin**	
10:35 AM	0:35	**Notable Paper**	The Discrete Infinite Logistic Normal Distribution for Mixed-Membership Modeling	221	John Paisley, Princeton University; Chong Wang, Princeton University; David Blei, Princeton University	Frank Wood
11:10 AM	0:25		Online Variational Inference for the Hierarchical Dirichlet Process	57	Chong Wang, Princeton University; John Paisley, Princeton University; David Blei, Princeton University	

Start	Duration		Title	Paper ID	Authors	Discussant
11:35 AM	0:25		Dependent Hierarchical Beta Process for Image Interpolation and Denoising	166	Mingyuan Zhou, Duke ECE; Hongxia Yang, Duke Stats; Guillermo Sapiro, UMN ECE; David Dunson, Duke University; Lawrence Carin, Duke ECE	
12:00 PM	0:25		Lightweight Implementations of Probabilistic Programming Languages Via Transformational Compilation	231	David Wingate; Andreas Stuhlmueller, MIT; Noah Goodman, Stanford	
12:25 PM		**Break**	Break (lunch on own and afternoon off)			
		Session	**No-regret and planning algorithms**		**Session chair: Barnabas Poczos**	
5:00 PM	0:35	**Notable Paper**	Contextual Bandit Algorithms with Supervised Learning Guarantees	136	Alina Beygelzimer, IBM Research; John Langford, Yahoo! Research; Lihong Li, Yahoo! Research; Lev Reyzin, Georgia Institute of Tech.; Robert Schapire, Princeton University	Brendan McMahan
5:35 PM	0:25		Improved Regret Guarantees for Online Smooth Convex Optimization with Bandit Feedback	106	Ankan Saha, University of Chicago; Ambuj Tewari, University of Texas Austin	
6:00 PM	0:25		A Reduction of Imitation Learning and Structured Prediction to No-Regret Online Learning	217	Stephane Ross, Carnegie Mellon University; Geoffrey Gordon, CMU MLD; Drew Bagnell,	
6:25 PM		**Break**	Break (dinner on own)			
8:00 PM 11:00 PM	3:00		**Poster session II** hors d'oeuvres and cash bar			

Wednesday, April 13

7:30 AM	1:00		Breakfast			
					Session chair: Yoshua Bengio	
8:15 AM	1:00	**Invited Talk**	Convex Relaxation and Estimation of High-Dimensional Matrices		Martin Wainwright	
		Session	**Factorization and dimensionality reduction**		**Session chair: Ricardo Silva**	
9:15 AM	0:35	**Notable Paper**	Spectral Dimensionality Reduction via Maximum Entropy	187	Neil Lawrence, University of Sheffield	Laurens van der Maaten
9:50 AM	0:25		Semi-supervised Learning by Higher Order Regularization	12	Xueyuan Zhou, University of Chicago; Mikhail Belkin, The Ohio State University	
10:15 AM	0:25		Can matrix coherence be efficiently and accurately estimated?	56	Mehryar Mohri; Ameet Talwalkar, UC Berkeley	
10:40 AM	0:30	**Break**	Break (coffee, tea)			
		Session	**Deep Learning**		**Session chair: Laurens van der Maaten**	
11:10 AM	0:35	**Notable Paper**	The Neural Autoregressive Distribution Estimator	163	Hugo Larochelle, University of Toronto; Iain Murray,	Yoshua Bengio
11:45 AM	0:25		Deep Learning for Efficient Discriminative Parsing	255	Ronan Collobert, NEC Laboratories America	
12:10 PM			**AISTATS ends** the Learning Workshop invites AISTATS registrants to attend all Learning talks on Wednesday			

Poster session I: papers

Poster	Bridging the Language Gap: Topic-Level Adaptation for Cross-Domain Knowledge Transfer	3	Shuang-Hong Yang, Georgia Tech; Steven Crain, Georgia Tech; Hongyuan Zha, Georgia Tech
Poster	Optimal Distributed Market-Based Planning for Multi-Agent Systems with Shared Resources	4	Sue Ann Hong, Carnegie Mellon University; Geoffrey Gordon, CMU MLD
Poster	A Finite Newton Algorithm for Non-degenerate Piecewise Linear Systems	7	Xiao-Tong Yuan, National University of Singapo; Shuicheng Yan, National University of Singapo
Poster	Spectral Clustering on a Budget	11	Ohad Shamir, Microsoft Research; Naftali Tishby, The Hebrew University

Start	Duration	Title	Paper ID	Authors	Discussant
	Poster	Estimating Probabilities in Recommendation Systems	16	Mingxuan Sun, Georgia Tech; Paul Kidwell; Guy Lebanon, Georgia Institute of Technology	
	Poster	Spectral Chinese Restaurant Processes: Nonparametric Clustering Based on Similarities	18	Richard Socher, Stanford University; Andrew Maas, Stanford University; Christopher Manning, Stanford University	
	Poster	Maximum Volume Clustering	36	Gang Niu, Tokyo Institute of Technology; Bo Dai, Chinese Academy of Science; Lin Shang; Masashi Sugiyama, Tokyo Institute of Technology	
	Poster	Bagged Structure Learning of Bayesian Network	52	Gal Elidan, Hebrew University	
	Poster	Tighter Relaxations for MAP-MRF Inference: A Local Primal-Dual Gap based Separation Algorithm	73	Dhruv Batra, TTIC; Sebastian Nowozin, MSRC; Pushmeet Kohli, MSRC	
	Poster	Evolving Cluster Mixed-Membership Blockmodel for Time-Evolving Networks	75	Qirong Ho, Carnegie Mellon University; Le Song, CMU; Eric Xing, Carnegie Mellon University	
	Poster	Convergent Decomposition Solvers for Tree-reweighted Free Energies	80	Jeremy Jancsary, OFAI; Gerald Matz, Vienna University of Technology	
	Poster	Learning mixtures of Gaussians with maximum-a-posteriori oracle	116	Satyaki Mahalanabis, University of Rochester	
	Poster	Contextual Bandits with Linear Payoff Functions	130	Chu ; Lihong Li, Yahoo! Research; Lev Reyzin, Georgia Institute of Tech.; Robert Schapire, Princeton University	
	Poster	Active Boosted Learning (ActBoost)	132	Kirill Trapeznikov; Venkatesh Saligrama, Boston University; David Castanon,	
	Poster	A novel greedy algorithm for Nyström approximation	142	Ahmed Farahat, University of Waterloo; Ali Ghodsi; Mohamed Kamel, Department of Electrical and Computer Engineering, University of Waterloo	
	Poster	Learning from positive and unlabeled examples by enforcing statistical significance	164	Pierre Geurts, University of Liège	
	Poster	Block-sparse Solutions using Kernel Block RIP and its Application to Group Lasso	181	Rahul Garg, IBM Research; Rohit Khandekar, IBM Research	
	Poster	Information Theoretical Clustering via Semidefinite Programming	183	Meihong Wang, Univ. of Southern California; Fei Sha, USC	
	Poster	Domain Adaptation with Coupled Subspaces	195	John Blitzer, Google; Sham Kakade, University of Pennsylvania; Dean Foster, University of Pennsylvania	
	Poster	Follow-the-Regularized-Leader and Mirror Descent: Equivalence Theorems and L1 Regularization	206	Brendan McMahan,	
	Poster	An Instantiation-Based Theorem Prover for First-Order Programming	207	Erik Zawadzki, Carnegie Mellon; Geoffrey Gordon, CMU MLD; Andre Platzer, Carnegie Mellon	
	Poster	Generative Kernels for Exponential Families	210	Arvind Agarwal, University of Maryland CP; Hal Daumé III, University of Maryland	
	Poster	Multiple Auxiliary Kernel Learning with Applications to Skin Cancer Screening	215	Ning Situ, University of Houston; Xiaojing Yuan, University of Houston; George Zouridakis, zouridakis@uh.edu	
	Poster	Optimal and Robust Price Experimentation: Learning by Lottery	216	Christopher Dance, Xerox Research Centre Europe; Onno Zoeter, Xerox	
	Poster	On Learning Discrete Graphical Models using Group-Sparse Regularization	219	Ali Jalali, University of Texas at Austin; Pradeep Ravikumar, UT Austin; Vishvas Vasuki; Sujay Sanghavi, University of Texas at Austin	
	Poster	Fast b-matching via Sufficient Selection Belief Propagation	232	Bert Huang, Columbia University; Tony Jebara, Columbia	
	Poster	Directional Statistics on Permutations	246	Sergey Plis, The MIND research network; Stephen McCracken; Terran Lane; Vince Calhoun,	
	Poster	Dynamic Policy Programming with Function Approximation	251	Mohammad Gheshlaghi Azar, Radboud University of Nijmegen; Vicenç Gómez, Radboud University, Nijmegen; Bert Kappen, Radboud University Nijmegen	
	Poster	Polytope samplers for inference in ill-posed inverse problems	253	Edo Airoldi; Bertrand Haas, Harvard University	
	Poster	Convex envelopes of complexity controlling penalties: \\ Case against premature envelopment	256	Vladimir Jojic, Stanford University; Suchi Saria, Stanford University; Daphne Koller,	

Start	Duration	Title	Paper ID	Authors	Discussant
	Poster	Empirical Risk Minimization of Graphical Model Parameters Given Approximate Inference, Decoding, and Model Structure	264	Veselin Stoyanov, Johns Hopkins University; Jason Eisner, Johns Hopkins University; Alexander Ropson, Johns Hopkins University	
	Poster	A Spike and Slab Restricted Boltzmann Machine	272	Aaron Courville, University of Montreal; James Bergstra, University of Montreal; Yoshua Bengio, Universite de Montreal	
	Poster	Switch-Reset Models : Exact and Approximate Inference	273	Chris Bracegirdle, University College London; David Barber,	
	Poster	Group Orthogonal Matching Pursuit for Logistic Regression	280	Aurelie Lozano, IBM Research; Grzegorz Swirszcz, IBM Research; Naoki Abe, IBM Research	
	Poster	Linear-Time Estimators for Propensity Scores	283	Deepak Agarwal; Lihong Li, Yahoo! Research; Alexander Smola, Yahoo! Research	
		Poster session II: papers			
	Poster	Unsupervised Supervised Learning II: Margin-Based Classification without Labels	14	Krishnakumar Balasubramanian, Georgia Institute of Technolog; Pinar Donmez, Carnegie Mellon University; Guy Lebanon, Georgia Institute of Technology	
	Poster	Hidden-Unit Conditional Random Fields	20	Laurens van der Maaten, University of California, San Diego; Max Welling, UC Irvine; Lawrence Saul, University of California, San Diego	
	Poster	Cross-Domain Object Matching with Model Selection	35	Makoto Yamada, Tokyo Institute of Technology; Masashi Sugiyama, Tokyo Institute of Technology	
	Poster	CAKE: Convex Adaptive Kernel Density Estimation	39	Ravi Sastry Ganti Mahapatruni, Georgia Institute of Technolog; Alexander Gray, Georgia Institute of Technology	
	Poster	Generalization Bound for Infinitely Divisible Empirical Process	46	Chao Zhang, @ntu.edu.sg; Dacheng Tao, University of Technology, Sydney	
	Poster	Error Analysis of Laplacian Eigenmaps for Semi-supervised Learning	47	Xueyuan Zhou, University of Chicago; Nathan Srebro, Toyota Technological Institute	
	Poster	Multi-Label Output Codes using Canonical Correlation Analysis	49	Yi Zhang, Carnegie Mellon University; Jeff Schneider, Carnegie Mellon University	
	Poster	Faithfulness in Chain Graphs: The Gaussian Case	50	Jose Peña, Linköping University	
	Poster	Confidence Weighted Mean Reversion Strategy for On-Line Portfolio Selection	64	Bin Li, NTU, Singapore; Steven C.H. Hoi, NTU; Peilin Zhao, NTU, Singapore; Vivekanand Gopalkrishnan, NTU, Singapore	
	Poster	Multicore Gibbs Sampling in Dense, Unstructured Graphs	71	Tianbing Xu, University of California, Irvi; Alexander Ihler, UC, Irvine	
	Poster	Multiscale Community Blockmodel for Network Exploration	72	Qirong Ho, Carnegie Mellon University; Ankur Parikh, Carnegie Mellon University; Le Song, CMU; Eric Xing, Carnegie Mellon University	
	Poster	Online Learning of Structured Predictors with Multiple Kernels	83	Andre Filipe Torres Martins, Instituto Superior Tecnico; Mario Figueiredo; Pedro Aguiar; Noah Smith; Eric Xing, Carnegie Mellon University	
	Poster	Simultaneous Learning of Class-relevant Features and Class-irrelevant Features	96	Heng Luo, Shanghai Jiao Tong University; Ruimin Shen, Shanghai Jiao Tong University; Changyong Niu; Carsten Ullrich ,	
	Poster	Revisiting MAP Estimation, Message Passing and Perfect Graphs	111	James Foulds, UC Irvine; Alexander Ihler, UC, Irvine; Nicholas Navaroli, UC Irvine; Padhraic Smyth, UC Irvine	
	Poster	Fast Convergent Algorithms for Expectation Propagation Approximate Bayesian Inference	112	Matthias Seeger, EPF Lausanne; Hannes Nickisch, MPI Tuebingen	
	Poster	Adaptive Bandits: Towards the best history-dependent strategy	115	Maillard Odalric, INRIA; Remi Munos,	
	Poster	Generative Modeling for Maximizing Precision and Recall in Information Visualization	117	Jaakko Peltonen, Aalto University; Samuel Kaski, Aalto University	
	Poster	Improved Loss Bounds For Multiple Kernel Learning	118	Zakria Hussain, University College London; John Shawe-Taylor, University College London	

Start	Duration	Title	Paper ID	Authors	Discussant
	Poster	Deep Learners Benefit More from Out-of-Distribution Examples	126	Yoshua Bengio, Universite de Montreal	
	Poster	Approximate inference for the loss-calibrated Bayesian	151	Simon Lacoste-Julien, University of Cambridge; Ferenc Huszar, University of Cambridge; Zoubin Ghahramani, University of Cambridge	
	Poster	On Time Varying Undirected Graphs	156	Mladen Kolar, Carnegie Mellon University; Eric Xing, Carnegie Mellon University	
	Poster	Statistical Optimization of Non-Negative Matrix Factorization	161	Anoop Korattikara Balan, Univ. of California Irvine; Levi Boyles, University of California, Irvine; Max Welling, UC Irvine; Jingu Kim, Georgia Institute of Technology; Haesun Park, Georgia Institute of Technology	
	Poster	Two-Layer Multiple Kernel Learning	168	Jinfeng Zhuang, NTU; Ivor W. Tsang, NTU; Steven C. H. Hoi, NTU	
	Poster	Active Diagnosis under Persistent Noise with Unknown Noise Distribution: A Rank-Based Approach	172	Gowtham Bellala, University of Michigan; Suresh Bhavnani, University of Texas Medical Branch; Clayton Scott, University of Michigan	
	Poster	Online Learning of Tasks and Their Relationships	175	Avishek Saha, University of Utah; Piyush Rai, University of Utah; Hal Daumé III, University of Maryland; Suresh Venkatasubramanian, University of Utah	
	Poster	A Dynamic Relational Infinite Feature Model for Longitudinal Social Networks	178	James Foulds, UC Irvine; Arthur Asuncion, UC Irvine; Christopher DuBois, UC Irvine; Carter Butts, UC Irvine; Padhraic Smyth, UC Irvine	
	Poster	On NDCG Consistency of Listwise Ranking Methods	179	Pradeep Ravikumar, UT Austin; Ambuj Tewari, University of Texas Austin; Eunho Yang, UT Austin	
	Poster	The Online Infinite Topic-Cluster Model: Storylines from Streaming Text	186	Amr Ahmed, CMU; Qirong Ho, Carnegie Mellon University; jacob Eisenstein, Carnegie Mellon; Alex Smola; Choon Hui Teo, Yahoo; Eric Xing, Carnegie Mellon University	
	Poster	Bayesian Hierarchical Cross-Clustering	199	Dazhuo Li, University of Louisville; Patrick Shafto,	
	Poster	Parallel Gibbs Sampling: From Colored Fields to Thin Junction Trees	211	Joseph Gonzalez, CMU; Yucheng Low, CMU; Arthur ; Carlos Guestrin, Carnegie Mellon University	
	Poster	Hierarchical Probabilistic Models for Group Anomaly Detection	220	Liang Xiong, Carnegie Mellon University; Barnabas Poczos, Carnegie Mellon University; Jeff Schneider, Carnegie Mellon University	
	Poster	Deep Sparse Rectifier Neural Networks	223	Xavier Glorot, Universite de Montreal; Antoine Bordes, Universite de Montreal; Yoshua Bengio, Universite de Montreal	
	Poster	Active Clustering: Robust and Efficient Hierarchical Clustering using Adaptively Selected Similarities	230	Brian Eriksson, Boston University; Gautam Dasarathy, University of Wisconsin - Madison; Aarti Singh, Carnegie Mellon University; Rob Nowak,	
	Poster	Robust Bayesian Matrix Factorisation	235	Balaji Lakshminarayanan, Oregon State University; Guillaume Bouchard, Xerox Research Centre Europe; Cedric Archambeau, Xerox Research Center Europe	
	Poster	Kernel Belief Propagation	242	Le Song, CMU; arthur Gretton; Yucheng Low, CMU; Danny Bickson, CMU; Carlos Guestrin, Carnegie Mellon University	
	Poster	Dimensionality Reduction for Spectral Clustering	254	Donglin Niu, Northeastern University; Jennifer Dy, Northeastern University; Michael Jordan, UC Berkeley	
	Poster	An Analysis of Single-Layer Networks in Unsupervised Feature Learning	262	Adam Coates, Stanford ; Andrew Ng, Stanford University; Honglak Lee,	
	Poster	Efficient variable selection in support vector machines via the alternating direction method of multipliers	266	Gui-Bo Ye, UC Irvine; Yifei Chen, UCI; Xiaohui Xie, UC Irvine	
	Poster	Estimating β-mixing coefficients	267	Daniel McDonald, Carnegie Mellon - Statistics; Cosma Shalizi, CMU; Mark Schervish, Carnegie Mellon - Statistics	
	Poster	Model-free Inverse Reinforcement Learning	268	Abdeslam Boularias, MPI for Biological Cybernetics; Jens Kober; Jan Peters, Max Planck Institute	

Start	Duration	Title	Paper ID	Authors	Discussant
	Poster	The Sample Complexity of Self-Verifying Bayesian Active Learning	275	Steve Hanneke; Liu Yang, Carnegie Mellon University; Jaime Carbonell, Carnegie Mellon University	
	Poster	Machine Learning Markets	281	Amos Storkey, University of Edinburgh	