

Machine Reasoning Workshops I & II: Mission-Focused Representation & Understanding of Complex Real-World Data

Monday September 20, 2010

- 8:00–9:00 *Check-In/Light Breakfast (Hosted by IPAM)*
- 9:00–9:05 *IPAM Welcome*
- 9:05–9:15 **Wen Masters** (Office of Naval Research)
- 9:15–10:05 **Bobby Junker** (Office of Naval Research)
- 10:15–11:00 *Break*
- 11:00–11:50 **Robert Calderbank** (Princeton University)
- 12:00–1:00 *Lunch (on your own)*
- 1:00–1:50 **Robert Nowak** (University of Wisconsin-Madison)
Adaptive Sensing and Information
- 2:00–2:50 **Lawrence Saul** (University of California, San Diego (UCSD))
Statistics, Geometry, Computation: Searching for Low Dimensional Structure in High Dimensional Data
- 3:00–3:15 *Break*
- 3:15–4:05 **Jack Snoeyink** (University of North Carolina)
- 4:30–6:00 *Group Discussion*

Tuesday September 21, 2010

- 8:30–9:00 *Continental Breakfast*
- 9:00–9:50 **Lawrence Carin** (Duke University)
- 10:00–10:50 **Guillermo Sapiro** (University of Minnesota, Twin Cities)
Collaborative Hierarchical Structured Sparse Modeling
- 11:00–11:15 *Break*

(Tuesday schedule continued on next page)



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11:15–12:30 *Group Discussion*

12:30–1:30 *Lunch (on your own)*

1:30–2:20 **AnHai Doan** (University of Wisconsin-Madison)
Building Structured Web Databases: a Midterm Report from the Cimple Project

2:30–3:20 **Paul Rosenbloom** (University of Southern California (USC))
Exploiting Graphical Models for Enhancing Functionality and Uniformity in Cognitive Architectures

3:30–6:00 *Group Discussion*

6:15–8:00 *Reception and Poster Session (Hosted by IPAM)*

Wednesday September 22, 2010

8:00–8:30 *Continental Breakfast*

8:30–9:20 **John Doyle** (California Institute of Technology)
Universal laws, architectures, and behaviors in effective understanding and action

9:30–9:45 *Break*

9:45–11:45 *Group Discussion and Wrapup*

11:45–1:00 *Lunch (on your own)*

1:00–1:30 *Group Photo*

1:30–2:20 **Carlos Guestrin** (Carnegie-Mellon University)

2:30–3:20 **Leonidas Guibas** (Stanford University)
The Information is in the Maps

3:30–3:45 *Break*

3:45–4:35 **Yann LeCun** (New York University)
Learning Features

5:00–6:00 *Group Discussion*

Thursday September 23, 2010

- 8:00–8:30 *Continental Breakfast*
- 8:30–9:20 **David Blei** (Princeton University)
Scalable inference in probabilistic topic models
- 9:30–10:20 **Emily Fox** (Duke University)
Bayesian Nonparametric Time Series Models for Complex Dynamical Phenomena
- 10:30–10:45 *Break*
- 10:45–12:30 *Group Discussion*
- 12:30–1:30 *Lunch (on your own)*
- 1:30–2:20 **Henry Kautz** (University of Rochester)
Recognizing Multi-Agent Activities from GPS Data
- 2:30–3:20 **Mauro Maggioni** (Duke University)
Multiscale geometric methods for point clouds in high-dimensions
- 3:30–3:45 *Break*
- 3:45–6:00 *Group Discussion*

Friday September 24, 2010

- 8:30–9:00 *Continental Breakfast*
- 9:00–9:50 **David Bindel** (Cornell University)
Inference of computer network properties: a linear algebra approach
- 10:00–10:50 **Dieter Fox** (University of Washington)
Toward High-level Reasoning in Robotics
- 11:15–11:30 *Break*
- 11:30–12:30 *Group Discussion*
- 12:30–1:30 *Lunch (on your own)*
- 1:30–3:00 *Group Discussion and Wrapup*

