

Workshops II: Numerical Tools and Fast Algorithms for Massive Data Mining, Search Engines and Applications

Monday October 22, 2007

- 8:00–8:45 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:45–9:00 *Welcome and Opening Remarks*
- 9:00–10:00 **Michael Berry** (University of Tennessee)
Nonnegative Matrix and Tensor Factorizations for Text Mining Applications
- 10:00–10:30 *Break*
- 10:30–11:30 **Vladimir Rokhlin** (Yale University)
Accurate Randomized Algorithms of Numerical Analysis
- 11:30–1:00 *Lunch (on your own)*
- 1:00–2:00 **Chris Burges** (Microsoft Research)
Learning to Rank for Web Search
- 2:00–2:30 *Break*
- 2:30–3:30 **Inderjit Dhillon** (University of Texas at Austin)
Metric and Kernel Learning
- 3:30–4:00 *Break*
- 4:00–5:00 **Dan Boley** (University of Minnesota, Twin Cities)
Fast Clustering leads to Fast SVM Training and More
- 5:00–6:30 *Reception (Location: IPAM Lobby)*

Tuesday October 23, 2007

- 8:00–9:00 *Continental Breakfast*
- 9:00–10:00 **Tamas Sarlos** (Yahoo! Research)
Faster Least Squares Approximation
- 10:00–10:30 *Break*

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- 10:30–11:30 **Oliver Chapelle** (Yahoo! Research)
Optimization techniques for Support Vector Machines
- 11:30–12:30 **Yoram Singer** (Google Inc.)
Primal and dual views of online learning
- 12:30–1:30 *Lunch (on your own)*
- 1:30–2:30 **Andrew Zisserman** (University of Oxford)
Scalable Visual Object Retrieval
- 2:30–3:00 *Break*
- 3:00–4:00 **Rob Fergus** (New York University)
Exploring the world of tiny images with a database of 10^8 images
- 4:00–4:30 *Break*
- 4:30–5:30 **Till Quack** (Eidgenössische TH Zürich-Hönggerberg)
Frequent Itemset Mining and Association Rules in Visual Data

Wednesday October 24, 2007

- 8:00–9:00 *Continental Breakfast*
- 9:00–10:00 **Ruslan Salakhutdinov** (University of Toronto)
Semantic Hashing for Fast Document Retrieval
- 10:00–10:30 *Break*
- 10:30–11:30 **Michael Isard** (Microsoft Research)
Web-scale distributed search
- 11:30–12:30 **Kristen Grauman** (University of Texas at Austin)
Efficient Image Search with Correspondence Kernels and Learned Metrics
- 12:30–1:30 *Lunch (on your own)*
- 1:30–2:30 **Andrew Fitzgibbon** (Microsoft Research)
Matrix Factorization with Missing Data
- 2:30–3:00 *Break*
- 3:00–4:00 **Sam Roweis** (University of Toronto)
Making the Sky Searchable: Continuous Hash Codes for Geometry Pattern Recognition
- 4:00–4:30 *Break*
- 4:30–5:30 **Leon Bottou** (NEC Research Institute)
Learning using Many Examples

Thursday October 25, 2007

- 8:00–9:00 *Continental Breakfast*
- 9:00–10:00 **Alfred Inselberg** (Tel Aviv University)
Parallel Coordinates: Visualization and Data Mining for High Dimensional Data
- 10:00–10:30 *Break*
- 10:30–11:30 **Yann LeCun** (New York University)
- 11:30–12:30 **Svetlana Lazebnik** (University of North Carolina)
Exploring image data with quantization-based techniques
- 12:30–1:30 *Lunch (on your own)*
- 1:30–2:30
TBA
- 2:30–3:00 *Break*
- 3:00–4:00 **Peter Jones** (Yale University)
Local Coordinate Systems: Theory and Numerical Analysis

Friday October 26, 2007

- 8:00–9:00 *Continental Breakfast*
- 9:00–10:00 **Tamara Kolda** (Sandia National Laboratories)
Tensor Decompositions and Data Mining
- 10:00–10:30 *Break*
- 10:30–11:30 **Bruce Hendrickson** (Sandia National Laboratories)
Graphs, Data Mining, and High Performance Computing
- 11:30–12:30 **Mark Tygert** (Yale University)
A fast algorithm for approximating the singular value decomposition of a matrix
- 12:30–12:00 *Conclusion*

