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# CIKM'12 Main Conference Program

### Tuesday, October 30, 2012

#### Conference Opening (8:10 - 8:30)

Room: Maui Ballroom

**Welcome:** Conference Chair **Program introduction**: PC Chairs

#### **Keynote Speech (8:30 - 9:30)**

Chair:

Room: Maui Ballroom

**Title:** User Engagement: The Network Effect Matters! **Speaker:** Ricardo Baeza-Yates, Yahoo! Research

#### Coffee Break (9:30 - 10:15)

#### Session 1 (10:15 - 12:20)

**KM Track:** Recommender Systems

Chair:

Room: Wailuku

- LogUCB: An Explore-Exploit Algorithm For Comments Recommendation Dhruv Kumar Mahajan, Rajeev Rastogi, Charu Tiwari, Adway Mitra
- DQR: A Probabilistic Approach to Diversified Query Recommendation Ruirui Li, Ben Kao, Bin Bi, Reynold Cheng, Eric Lo
- Dynamic Covering for Recommendation Systems
   Ioannis Antonellis, Anish Das Sarma, Shaddin Dughmi
- MEET: A Generalized Framework for Reciprocal Recommender Systems Lei Li, Tao Li
- Social Contextual Recommendation
   Meng Jiang, Peng Cui, Rui Liu, Qiang Yang, Fei Wang, Wenwu Zhu, Shiqiang Yang

#### Session 2 (10:15 - 12:20)

**KM Track:** Pattern Mining

Chair:

Room: Kahului

- Mining High Utility Itemsets without Candidate Generation Mengchi Liu, Junfeng Qu
- A General Framework to Encode Heterogeneous Information Sources for Contextual Pattern Mining Weishan Dong, Wei Fan, Lei Shi, Changjin Zhou, Xifeng Yan
- Incorporating Occupancy into Frequent Pattern Mining for High Quality Pattern Recommendation Linpeng Tang, Lei Zhang, Ping Luo, Min Wang
- PARMA: A Parallel Randomized Algorithm for Approximate Association Rules Mining in MapReduce

Matteo Riondato, Justin A DeBrabant, Rodrigo Fonseca, Eli Upfal

• Interactive Pattern Mining on Hidden Data: A Sampling-based Solution Mansurul Bhuiyan, Snehasis Mukhopadhyay, Mohammad Al Hasan

#### Session 3 (10:15 - 12:20)

**IR Track:** Evaluation Methodologies

Chair:

Room: Kihei and Wailea

- An Analysis of Systematic Judging Errors in Information Retrieval Gabriella Kazai, Nick Craswell, Emine Yilmaz, S.M.M Tahaghoghi
- On Caption Bias in Interleaving Experiments Katja Hofmann, Fritz Behr, Filip Radlinski
- Alternative assessor disagreement and retrieval depth William Webber, Praveen Chandar, Ben Carterette
- Incorporating Variability in User Behavior into Systems Based Evaluation Ben Carterette, Evangelos Kanoulas, Emine Yilmaz
- Constructing Test Collections by Inferring Document Relevance via Extracted Relevant Information Shahzad Rajput, Matthew Ekstrand-Abueg, Virgil Pavlu, Javed A. Aslam

#### Session 4 (10:15 - 12:20)

IR Track: Social Media Search

Chair:

Room: Kapalua

- Twevent: Segment-based Event Detection from Tweets Chenliang Li, Aixin Sun, Anwitaman Datta
- Making Your Interests Follow You on Twitter
   Marco Pennacchiotti, Fabrizio Silvestri, Hossein Vahabi, Rossano Venturini
- Generating Event Storylines from Microblogs
   Chen Lin, Chun Lin, Jingxuan Li, Dingding Wang, Yang Chen, Tao Li
- Social Book Search: Comparings Topical Relevance Judgements and Book Suggestions for Evaluation Marijn Koolen, Jaap Kamps, Gabriella Kazai
- Content-Based Crowd Retrieval on the Real-Time Web Krishna Y Kamath, James Caverlee

#### **Short Paper Session S1 (10:15 - 12:20)**

**KM Track:** Text/Web Mining

Chair:

Room: Napili

- Automatically Embedding Newsworthy Links to Articles Hakan Ceylan, Ioannis Arapakis, Pinar Donmez, Mounia Lalmas
- Feature Selection Based on Term Frequency and T-Test for Text Categorization Deqing Wang, Hui Zhang, Rui Liu, Weifeng Lv
- Extraction of Topic Evolutions from References in Scientific Articles and Its GPU Acceleration Tomonari Masada, Atsuhiro Takasu
- · Reconciling Ontologies and the Web of Data

Ziawasch Abedian, Johannes Lorey, Felix Naumann

- Exploiting Latent Relevance for Relational Learning of Ubiquitous Things Lina Yao, Quan Z. Sheng
- Mining Coherent Anomaly Collections On Web Data Hanbo Dai, Feida Zhu, Ee-Peng Lim, HweeHwa Pang
- Mining Topic-level Opinion Influence in Microblog
   Daifeng Li, Xin Shuai, Guozheng Sun, Jie Tang, Ying Ding, Zhipeng Luo
- Exploiting Enriched Contextual Information for Mobile App Classification Hengshu Zhu, Huanhuan Cao, Enhong Chen, Hui Xiong, Jilei Tian
- Incorporating Word Correlation into Tag-Topic Model for Semantic Knowledge Acquisition Fang Li, Tingting He, Xinhui Tu, Xiaohua Hu
- PriSM: Discovering and Prioritizing Severe Technical Issues from Product Discussion Forums Rashmi Gangadharaiah, Rose Catherine
- Community-Based Classification of Noun Phrases in Twitter
   Freddy Chong Tat Chua, William W Cohen, Justin Betteridge, Ee-Peng Lim
- Joint Bilingual Name Tagging for Parallel Corpora
   Qi Li, Haibo Li, Heng Ji, Wen Wang, Jing Zheng, Fei Huang

#### **Short Paper Session S2 (10:15 - 12:20)**

**KM Track:** Networks and Graphs

Chair:

**Room:** Kula and Hana

- Influence and Similarity on Heterogeneous Networks Guan Wang, Qingbo Hu, Philip S. Yu
- GRAFT: An Approximate Graphlet Counting Algorithm for Large Graph Analysis Mahmudur Rahman, Mansurul Bhuiyan, Mohammad Al Hasan
- Fast Approximation of Steiner Trees in Large Graphs Andrey Gubichev, Thomas Neumann
- Measuring Robustness of Complex Networks under MVC Attack
   Rong-Hua Li, Jeffrey Xu Yu, Xin Huang, Hong Cheng, Zechao Shang
- Meta Path-Based Collective Classification in Heterogeneous Information Networks Xiangnan Kong, Philip S. Yu, Ying Ding, David J. Wild
- Discretionary Social Network Data Revelation with a User-Centric Utility Guarantee
   Yi Song, Panagiotis Karras, Sadegh Nobari, Giorgos Cheliotis, Mingqiang Xue, Stephane Bressan
- Empirical Validation of the Buckley--Osthus Model for the Web Host Graph: Degree and Edge Distributions
  - Maxim Zhukovskiy, Dmitry Vinogradov, Yuri Pritykin, Liudmila Ostroumova, Evgeniy Grechnikov, Gleb Gusev, Pavel Serdyukov, Andrei Raigorodskii
- gSCorr: Modeling Geo-Social Correlations for New Check-ins on Location-Based Social Networks Huiji Gao, Jiliang Tang, Huan Liu
- Unsupervised Discovery of Opposing Opinion Networks From Forum Discussions
   Yue Lu, Hongning Wang, ChengXiang Zhai, Dan Roth
- WiSeNet: Building a Wikipedia-based Semantic Network with Ontologized Relations Andrea Moro, Roberto Navigli

- Shaping Communities out of Triangles
   Arnau Prat-Pèrez, David Dominguez-Sal, Josep M Brunat, Josep-Lluis Larriba-Pey
- Degree Relations of Triangles in Real-world Networks and Graph Models Nurcan Durak, Ali Pinar, Tamara G. Kolda, C. Seshadhri

#### **Lunch Provided by the Conference (12:20 - 01:30)**

#### Session 5 (1:30 - 3:35)

**KM Track:** Link and Graph Mining

Chair:

Room: Wailuku

- Graph Classification: A Diversified Discriminative FeatureSelection Approach Yuanyuan Zhu, Jeffrey Xu Yu, Hong Cheng, Lu Qin
- Multi-Scale Link Prediction
   Donghyuk Shin, Si Si, Inderjit S Dhillon
- An Analysis of How Ensembles of Collective Classifiers Improve Predictions in Graphs Hoda Eldardiry, Jennifer Neville
- Density Index and Proximity Search in Large Graphs Nan Li, Xifeng Yan, Zhen Wen, Arijit Khan
- Gelling, and Melting, Large Graphs by Edge Manipulation
  Hanghang Tong, B. Aditya Prakash, Tina Eliassi-Rad, Michalis Faloutsos, Christos Faloutsos

#### Session 6 (1:30 - 3:35)

IR Track: Language Technologies

Chair:

Room: Kahului

- One Seed to Find Them All: Mining Opinion Features via Association
   Zhen Hai, Kuiyu Chang, Gao Cong
- Topic-Driven Reader Comments Summarization Zongyang Ma, Aixin Sun, Quan Yuan, Gao Cong
- Visualizing Timelines: Evolutionary Summarization via Iterative Reinforcement between Text and Image Streams

Rui Yan, Xiaojun Wan, Mirella Lapata, Wayne Xin Zhao, Pu-Jen Cheng, Xiaoming Li

• Fast Multi-task Learning for Query Spelling Correction

Xu Sun, Anshumali Shrivastava, Ping Li

• Cross-Argument Inference for Implicit Discourse Relation Recognition Yu Hong, Xiaopei Zhou, Tingting Che, Jianmin Yao, Qiaoming Zhu, Guodong Zhou

#### Session 7 (1:30 - 3:35)

**DB Track:** Graph and Knowledge Base

Chair:

Room: Kihei and Wailea

- Interpreting Keyword Queries over Web Knowledge Bases Jeffrey Pound, Alexander K Hudek, Ihab F Ilyas, Grant Weddell
- RDF Pattern Matching using Sortable Views

Zhihong Chong, He Chen, Zhenjie Zhang, Hu Shu, Guilin Qi, Aoying Zhou

- Efficient Algorithms for Generalized Subgraph Query Processing Wenging Lin, Xiaokui Xiao, James Cheng, Souray S Bhowmick
- G-SPARQL: A Hybrid Engine for Querying Large Attributed Graphs Sherif Sakr, Sameh Elnikety, Yuxiong He
- A Graph-Based Approach for Ontology Population with Named Entities
   Wei Shen, Jianyong Wang, Ping Luo, Min Wang

#### Session 8 (1:30 - 3:35)

DB Track: Temporal, Spatial, and Multimedia Databases

Chair:

Room: Kapalua

- Decomposition-by-Normalization (DBN): Leveraging Approximate Functional Dependencies for Efficient Tensor Decomposition
   Mijung Kim, K. SelÁuk Candan
- A Filter-based Protocol for Continuous Queries over Imprecise Location Data Yifan Jin, Reynold Cheng, Ben Kao, Kam-Yiu Lam, Yinuo Zhang
- Leveraging Read Rates of Passive RFID Tags for Real-Time Indoor Location Tracking Da Yan, Zhou Zhao, Wilfred Ng
- Location-Aware Instant Search
   Ruicheng Zhong, Ju Fan, Guoliang Li, Kian-Lee Tan, Lizhu Zhou
- Indexing Uncertain Spatio-Temporal Data
   Tobias Emrich, Hans-Peter Kriegel, Nikos Mamoulis, Matthias Renz, Andreas Z, fle

#### **Short Paper Session S3 (1:30 - 3:35)**

KM Track: Recommendation and Summary

Chair:

**Room:** Napili

- A Simple Approach to the Design of Site-Level Extractors Using Domain-Centric Principles Chong Long, Xiubo Geng, Chang Xu, Sathiya Keerthi
- Graph-Based Workflow Recommendation: On Improving Business Process Modeling Bin Cao, Jianwei Yin, Shuiguang Deng, Dongjing Wang, Zhaohui Wu
- What is Happening Right Now ... That Interests Me?
   Ernesto Diaz-Aviles, Lucas Drumond, Zeno Gantner, Lars Schmidt-Thieme, Wolfgang Nejdl
- PRemiSE: Personalized News Recommendation via Implicit Social Experts
   Chen Lin, Runquan Xie, Lei Li, Zhenhua Huang, Tao Li
- Time-aware Topic Recommendation Based on Micro-blogs Huizhi Liang, Yue Xu, Dian Tjondronegoro, Peter Christen
- Topic-Sensitive Probabilistic Model for Expert Finding in Question Answer Communities Guangyou Zhou, Siwei Lai, Kang Liu, Jun Zhao
- The Early-Adopter Graph and its Application to Web-Page Recommendation Ida Mele, Francesco Bonchi, Aristides Gionis
- Real-Time Bid Optimization for Group-Buying Ads Raju Balakrishnan, Rushi P Bhatt

- A Probabilistic Approach to Mining Geospatial Knowledge from Social Annotations Suradej Intagorn, Kristina Lerman
- Providing Grades and Feedback for Student Summaries by Ontology-based Information Extraction Fernando Gutierrez, Dejing Dou, Stephen Fickas, Gina Griffiths
- Using Program Synthesis for Social Recommendations Alvin Cheung, Armando Solar-Lezama, Samuel Madden
- Web-Scale Multi-Task Feature Selection for Behavioral
   Targeting Amr Ahmed, Mohamed Aly, Abhimanyu Das, Alexander J Smola, Tasos Anastasakos
- Dynamic Effects of Ad Impressions on Commercial Actions in Display Advertising Joel Barajas, Ram Akella, Marius Holtan, Jaimie Kwon, Aaron Flores, Victor Andrei

#### **Short Paper Session S4 (1:30 - 3:35)**

**IR Track:** Web Search

Chair:

Room: Kula and Hana

- Content-Based Relevance Estimation on the Web Using Inter-Document Similarities Fiana Raiber, Oren Kurland, Moshe Tennenholtz
- Estimating Interleaved Comparison Outcomes from Historical Click Data Katja Hofmann, Shimon Whiteson, Maarten de Rijke
- Ranking News Events by Influence Decay and Information Fusion for Media and Users Liang Kong, Shan Jiang, Rui Yan, Shize Xu, Yan Zhang
- Leveraging Tagging for Neighborhood-aware Probabilistic Matrix Factorization Le Wu, Enhong Chen, Qi Liu, Linli Xu, Tengfei Bao, Lei Zhang
- · Federated Search in the Wild
  - Dong Nguyen, Thomas Demeester, Dolf Trieschnigg, Djoerd Hiemstra
- Task Tours: Helping Users Tackle Complex Search Tasks Ahmed Hassan, Ryen W White
- Structured Query Reformulations in Commerce Search Sreenivas Gollapudi, Samuel Ieong, Anitha Kannan
- Characterizing Web Search Queries that Match Very Few or No Results
   Ismail Sengor Altingovde, Roi Blanco, Berkant Barla Cambazoglu, Rifat Ozcan, Erdem Sarigil, ÷zg,r
   Ulusoy
- The Downside of Markup: Examining the Harmful Effects of CSS and Javascript on Indexing Today's
   Web
  - Karl Gyllstrom, Carsten Eickhoff, Arjen P. de Vries, Marie-Francine Moens
- A Unified Optimization Framework for Auction and Guaranteed Delivery in Online Advertising Konstantin Salomatin, Tie-Yan Liu, Yiming Yang
- Sentiment-Focused Web Crawling Gural Vural, B. Barla Cambazoglu, Pinar Senkul
- GTE: A Distributional Second-Order Co-Occurrence Approach to Improve the Identification of Top Relevant Dates in Web Snippets Ricardo Campos, GaÎl Dias, AlÌpio Jorge, CÈlia Nunes

#### **Coffee Break (3:34 - 4:00)**

#### Session 9 (4:00 - 5:40)

KM Track: Matrix Methods and Anomaly Detection

Chair:

Room: Wailuku

• Local Anomaly Descriptor: A Robust Unsupervised Algorithm for Anomaly Detection based on Diffusion Space

Hao Huang, Hong Qin, Shinjae Yoo, Dantong Yu

- Fast and Reliable Anomaly Detection in Categorical Data
   Leman Akoglu, Hanghang Tong, Jilles Vreeken, Christos Faloutsos
- TALMUD Transfer Learning for Multiple Domains
   Orly Moreno, Bracha Shapira, Lior Rokach, Guy Shani
- Utilizing Common Substructures to Speedup Tensor Factorization for Mining Dynamic Graphs Wei Liu, Jeffrey Chan, James Bailey, Christopher Leckie, Ramamohanarao Kotagiri

#### **Session 10 (4:00 - 5:40)**

**KM Track:** Social Networks

Chair:

Room: Kahului

- Predicting Emerging Social Conventions in Online Social Networks
   Farshad Kooti, Winter A. Mason, Krishna P. Gummadi, Meeyoung Cha
- Collective Intelligence in the Online Social Network of Yahoo!Answers and Its Implications Ze Li, Haiying Shen, Joseph Edward Grant
- From Face-to-Face Gathering To Social Structure Chunyan Wang, Mao Ye, Wang-chien Lee
- Delineating Social Network Data Anonymization via Random Edge Perturbation Mingqiang Xue, Panagiotis Karras, Raissi Chedy, Panos Kalnis, Hung Keng Pung

#### Session 11 (4:00 - 5:40)

**IR Track:** Advertising

Chair:

**Room:** Kihei and Wailea

- Multiview Hierarchical Bayesian Regression Model and Application to Online Advertising Tianbing Xu, Ruofei Zhang, Zhen Guo
- Visual Appearance of Display Ads and Its Effect on Click Through Rate
   Javad Azimi, Ruofei Zhang, Yang Zhou, Vidhya Navalpakkam, Jianchang Mao, Xiaoli Fern
- The Wisdom of Advertisers: Mining Subgoals via Query Clustering
  Takehiro Yamamoto, Tetsuya Sakai, Mayu Iwata, Chen Yu, Ji-Rong Wen, Katsumi Tanaka
- Sequential Selection of Correlated Ads by POMDPs Shuai Yuan, Jun Wang

#### Session 12 (4:00 - 5:40)

IR Track: System Architecture, Distributed IR, Scalability

Chair:

#### Room: Kapalua

• Diversity in Blog Feed Retrieval

Mostafa Keikha, Fabio Crestani, Bruce W Croft

• Efficient Retrieval of Recommendations in a Matrix Factorization Framework

Noam Koenigstein, Parikshit Ram, Yuval Shavitt

- KORE: Keyphrase Overlap Relatedness for Entity Disambiguation
   Johannes Hoffart, Stephan Seufert, Dat Ba Nguyen, Martin Theobald, Gerhard Weikum
- Shard Ranking and Cutoff Estimation for Topically Partitioned Collections Anagha Kulkarni, Almer S. Tigelaar, Djoerd Hiemstra, Jamie Callan

#### **Short Paper Session S5 (4:00 - 5:40)**

**DB Track:** Search, Retrieval and Big Data

Chair:

Room: Napili

- Top-k Retrieval Using Conditional Preference Networks Hongbing Wang, Xuan Zhou, Wujin Chen, Peisheng Ma
- LINDA: Distributed Web-of-Data-Scale Entity Matching
   Christoph B^hm, Gerard de Melo, Felix Naumann, Gerhard Weikum
- Finding the Optimal Path over Multi-Cost Graphs
   Yajun Yang, Jeffrey Xu Yu, Hong Gao, Jianzhong Li
- CloST: A Hadoop-based Storage System for Big Spatio-Temporal Data Analytics Haoyu Tan, Wuman Luo, Lionel M. Ni
- Loyalty-based Selection: Retrieving Objects That Persistently Satisfy Criteria Zhitao Shen, Muhammad Aamir Cheema, Xuemin Lin
- Optimizing Data Migration for Cloud-based Key-value Stores Xiulei Qin, Wenbo Zhang, Wei Wang, Jun Wei, Xin Zhao, and Tao Huang
- A New Tool for Multi-Level Partitioning in Teradata
   Young-Kyoon Suh, Ahmad Ghazal, Alain Crolotte, Pekka Kostamaa

#### **Short Paper Session S6 (4:00 - 5:40)**

**DB Track:** Query and Indexing

Chair:

Room: Kula and Hana

- Sort-based Query-adaptive Loading of R-trees
  - Daniar Achakeev, Bernhard Seeger, Peter Widmayer
- Diversifying Query Results on Semi-Structured Data
   Mahbub Hasan, Abdullah Mueen, Vassilis Tsotras, Eamonn Keogh
- An Efficient Index for Massive IOT Data in Cloud Environment
  - Youzhong Ma, Jia Rao, Weisong Hu, Xiaofeng Meng, Xu Han, Yu Zhang, Yunpeng Chai, Chunqiu Liu
- Impact Neighborhood Indexing (INI) in Diffusion Graphs Jung Hyun Kim, K. Selcuk Candan, Maria Luisa Sapino
- Applying Weighted Queries on Probabilistic Databases Sebastian Lehrack
- Fast PCA Computation in a DBMS with Aggregate UDFs and LAPACK

Carlos Ordonez, Naveen Mohanam, Carlos Garcia-Alvarado, Predrag T. Tosic, Edgar Martinez

 A Probabilistic Approach to Correlation Queries in Uncertain Time Series Data Mahsa Orang, Nematollaah Shiri

#### Short-paper Posters (6:40 - 9:00)

**Room:** Maui Ballroom

#### **KM Track**

• Influence and Similarity on Heterogeneous Networks Guan Wang, Qingbo Hu, Philip S. Yu

- GRAFT: An Approximate Graphlet Counting Algorithm for Large Graph Analysis Mahmudur Rahman, Mansurul Bhuiyan, Mohammad Al Hasan
- Mining Long-lasting Exploratory User Interests from Search History Bin Tan, Yuanhua Lv, ChengXiang Zhai
- Fast Approximation of Steiner Trees in Large Graphs Andrey Gubichev, Thomas Neumann
- Automatically Embedding Newsworthy Links to Articles
   Hakan Ceylan, Ioannis Arapakis, Pinar Donmez, Mounia Lalmas
- A Simple Approach to the Design of Site-Level Extractors Using Domain-Centric Principles Chong Long, Xiubo Geng, Chang Xu, Sathiya Keerthi
- Reconciling Ontologies and the Web of Data
   Ziawasch Abedjan, Johannes Lorey, Felix Naumann
- Efficient Extraction of Ontologies from Domain Specific Text Corpora Tianyu Li, Pirooz Chubak, Laks V.S. Lakshmanan, Rachel Pottinger
- Effective and Efficient? Bilingual Sentiment Lexicon Extraction using Collocation Alignment Zheng Lin, Songbo Tan, Xueqi Cheng, Xueke Xu, Weisong Shi
- Exploiting Latent Relevance for Relational Learning of Ubiquitous Things Lina Yao, Quan Z. Sheng
- Discovering Personally Semantic Places from GPS Trajectories
   Mingqi Lv, Ling Chen, Gencai Chen
- Mining Coherent Anomaly Collections On Web Data
   Hanbo Dai, Feida Zhu, Ee-Peng Lim, HweeHwa Pang
- Meta Path-Based Collective Classification in Heterogeneous Information Networks Xiangnan Kong, Philip S. Yu, Ying Ding, David J. Wild
- Discretionary Social Network Data Revelation with a User-Centric Utility Guarantee Yi Song, Panagiotis Karras, Sadegh Nobari, Giorgos Cheliotis, Mingqiang Xue, Stephane Bressan
- Empirical Validation of the Buckley--Osthus Model for the Web Host Graph: Degree and Edge Distributions
  - Maxim Zhukovskiy, Dmitry Vinogradov, Yuri Pritykin, Liudmila Ostroumova, Evgeniy Grechnikov, Gleb Gusev, Pavel Serdyukov, Andrei Raigorodskii
- gSCorr: Modeling Geo-Social Correlations for New Check-ins on Location-Based Social Networks Huiji Gao, Jiliang Tang, Huan Liu
- Swimming against the Streamz: Search and Analytics over the Enterprise Activity Stream Ido Guy, Tal Steier, Maya Barnea, Inbal Ronen, Tal Daniel

- What is Happening Right Now ... That Interests Me? Ernesto Diaz-Aviles, Lucas Drumond, Zeno Gantner, Lars Schmidt-Thieme, Wolfgang Nejdl
- Frequent grams based Embedding for Privacy Preserving Record Linkage Luca Bonomi, Li Xiong, Rui Chen, Benjamin C. M. Fung
- If You are Happy and You Know It... Tweet Amir Asiaee T., Mariano Tepper, Arindam Banerjee, Guillermo Sapiro
- Hierarchical Topic Integration Through Semi-supervised Hierarchical Topic Modeling Xian-Ling Mao, Jing He, Hongfei Yan, Xiaoming Li
- PriSM: Discovering and Prioritizing Severe Technical Issues from Product Discussion Forums Rashmi Gangadharaiah, Rose Catherine
- Preprocessing of Informal Mathematical Discourse in Context of Controlled Natural Language Ra'l Ernesto GutiÈrrez de PiÒerez Reyes, Juan Francisco Dìaz Frìas
- PathRank: A Novel Node Ranking Measure on a Heterogeneous Graph for Recommender Systems Sangkeun Lee, Sungchan Park, Minsuk Kahng, Sang-goo Lee
- Exploring the Existing Category Hierarchy to Automatically Label the Newly-arising Topics in cQA Guangyou Zhou, Li Cai, Kang Liu, Jun Zhao
- Query-Focused Multi-document Summarization Based on Query-Sensitive Feature Space Wenpeng Yin, Yulong Pei, Fan Zhang, Lian'en Huang
- Time-aware Topic Recommendation Based on Micro-blogs Huizhi Liang, Yue Xu, Dian Tjondronegoro, Peter Christen
- iSampling: Framework for Developing Sampling Methods Considering User's Interest Jinoh Oh, Hwanjo Yu
- WiSeNet: Building a Wikipedia-based Semantic Network with Ontologized Relations Andrea Moro, Roberto Navigli
- Shaping Communities out of Triangles
  Arnau Prat-PÈrez, David Dominguez-Sal, Josep M Brunat, Josep-Lluis Larriba-Pey
- Relational Co-Clustering via Manifold Ensemble Learning
   Ping Li, Jiajun Bu, Chun Chen, Zhanying He
- SemaFor: Semantic Document Indexing using Semantic Forests George Tsatsaronis, Iraklis Varlamis, Kjetil N⁻rvÂg
- Measuring Website Similarity using an Entity-Aware Click Graph Pablo N Mendes, Peter Mika, Hugo Zaragoza, Roi Blanco
- Community-Based Classification of Noun Phrases in Twitter Freddy Chong Tat Chua, William W Cohen, Justin Betteridge, Ee-Peng Lim
- Real-Time Bid Optimization for Group-Buying Ads Raju Balakrishnan, Rushi P Bhatt
- A Probabilistic Approach to Mining Geospatial Knowledge from Social Annotations Suradej Intagorn, Kristina Lerman
- Providing Grades and Feedback for Student Summaries by Ontology-based Information Extraction Fernando Gutierrez, Dejing Dou, Stephen Fickas, Gina Griffiths
- Joint Bilingual Name Tagging for Parallel Corpora
   Qi Li, Haibo Li, Heng Ji, Wen Wang, Jing Zheng, Fei Huang
- Using Program Synthesis for Social Recommendations Alvin Cheung, Armando Solar-Lezama, Samuel Madden

- Web-Scale Multi-Task Feature Selection for Behavioral Targeting Amr Ahmed, Mohamed Aly, Abhimanyu Das, Alexander J Smola, Tasos Anastasakos
- Balanced Coverage of Aspects for Text Summarization Takuya Makino, Hiroya Takamura, Manabu Okumura
- Dynamic Effects of Ad Impressions on Commercial Actions in Display Advertising Joel Barajas, Ram Akella, Marius Holtan, Jaimie Kwon, Aaron Flores, Victor Andrei
- A Hybrid Approach for Efficient Provenance Storage Yulai Xie, Dan Feng, Zhipeng Tan, Lei Chen, Kiran-Kumar Muniswamy-Reddy, Yan Li, Darrell D. E. Long

#### **IR Track**

- Content-Based Relevance Estimation on the Web Using Inter-Document Similarities
   Fiana Raiber, Oren Kurland, Moshe Tennenholtz
- Trust Prediction via Aggregating Heterogeneous Social Networks Jin Huang, Feiping Nie, Heng Huang, Yi-Cheng Tu
- Estimating Interleaved Comparison Outcomes from Historical Click Data Katja Hofmann, Shimon Whiteson, Maarten de Rijke
- Automatic Image Annotation Using Tag-Related Random Search over Visual Neighbors
   Zijia Lin, Guiguang Ding, Mingqing Hu, Jianmin Wang, Jiaguang Sun
- Diversionary Comments under Political Blog Posts
   Jing Wang, Clement T Yu, Philip S Yu, Bing Liu, Weiyi Meng
- Discover Breaking Events with Popular Hashtags in Twitter Anqi Cui, Min Zhang, Yiqun Liu, Shaoping Ma, Kuo Zhang
- Query Likelihood with Negative Query Generation Yuanhua Lv, ChengXiang Zhai
- On the Connections between Explicit Semantic Analysis and Latent Semantic Analysis Chao Liu, Yi-Min Wang
- Variance Maximization via Noise Injection for Active Sampling in Learning to Rank Wenbin Cai, Ya Zhang
- More Than Relevance: High Utility Query Recommendation By Mining Users' Search Behaviors Xiaofei Zhu, Jiafeng Guo, Xueqi Cheng, Yanyan Lan
- Finding Nuggets in IP Portfolios: Core Patent Mining through Textual Temporal Analysis Po Hu, Minlie Huang, Peng Xu, Weichang Li, Adam K Usadi, Xiaoyan Zhu
- Customizing Search Results for Non-Native Speakers Theodoros Lappas, Michail Vlachos
- Do Ads Compete or Collaborate? Designing Click Models with Full Relationship Incorporated Xin Xin, Irwin King, Ritesh Agrawal, Michael R. Lyu, Heyan Huang
- Ranking News Events by Influence Decay and Information Fusion for Media and Users Liang Kong, Shan Jiang, Rui Yan, Shize Xu, Yan Zhang
- Leveraging Tagging for Neighborhood-aware Probabilistic Matrix Factorization Le Wu, Enhong Chen, Qi Liu, Linli Xu, Tengfei Bao, Lei Zhang
- Semantic Context Learning with Large-Scale Weakly-Labeled Image Set Yao Lu, Wei Zhang, Ke Zhang, Xiangyang Xue
- Sketch-based Indexing of n-Words

- Samuel Huston, J. Shane Culpepper, W. Bruce Croft
- Interactive and Context-Aware Tag Spell Check and Correction Francesco Bonchi, Ophir Frieder, Franco Maria Nardini, Fabrizio Silvestri, Hossein Vahabi
- Federated Search in the Wild
  - Dong Nguyen, Thomas Demeester, Dolf Trieschnigg, Djoerd Hiemstra
- From sBoW to dCoT Marginalized Encoders for Text Representation Zhixiang (Eddie) Xu, Minmin Chen, Kilian Q. Weinberger
- Structured Query Reformulations in Commerce Search Sreenivas Gollapudi, Samuel Ieong, Anitha Kannan
- Towards Jointly Extracting Aspects and Aspect-Specific Sentiment Knowledge Xueke Xu, Songbo Tan, Yue Liu, Xueqi Cheng, Zheng Lin
- Collaborative Ranking: Improving the Relevance for Tail Queries Ke Zhou, Xin Li, Hongyuan Zha
- BiasTrust: Teaching Biased Users About Controversial Topics V.G.Vinod Vydiswaran, ChengXiang Zhai, Dan Roth, Peter Pirolli
- Recommending Citations: Translating Papers into References
  Wenyi Huang, Saurabh Kataria, Cornelia Caragea, Prasenjit Mitra, C. Lee Giles, Lior Rokach
- Discovering Logical Knowledge for Deep Question Answering Zhao Liu, Xipeng Qiu, Ling Cao, Xuanjing Huang
- Mining Noisy Tagging from Multi-label Space
   Zhongang Qi, Ming Yang, Zhongfei (Mark) Zhang, Zhengyou Zhang
- Learning from Mistakes: Towards a Correctable Learning Algorithm Karthik Raman, Krysta M Svore, Ran Gilad-Bachrach, Chris J.C. Burges
- Consento: A New Framework for Opinion Based Entity Search and Summarization
  Jaehoon Choi, Donghyeon Kim, Seongsoon Kim, Junkyu Lee, Sangrak Lim, Sunwon Lee, Jaewoo
  Kang
- Search Result Presentation Based on Faceted Clustering Benno Stein, Tim Gollub, Dennis Hoppe
- PolariCQ: Polarity Classification of Political Quotations Rawia Awadallah, Maya Ramanath, Gerhard Weikum
- A Comprehensive Analysis of Parameter Settings for Novelty-Biased Cumulative Gain Teerapong Leelanupab, Guido Zuccon, Joemon M. Jose
- Map to Humans and Reduce Error Crowdsourcing for Deduplication Applied to Digital Libraries Mihai Georgescu, Dang Duc Pham, Claudiu S. Firan, Wolfgang Nejdl, Julien Gaugaz
- Full-Text Citation Analysis: Enhancing Bibliometric and Scientific Publication Ranking Xiaozhong Liu, Jinsong Zhang, Chun Guo
- Detecting Offensive Tweets via Topical Feature Discovery over a Large Scale Twitter Corpus Guang Xiang, Bin Fan, Ling Wang, Jason Hong, Carolyn Rose
- The Downside of Markup: Examining the Harmful Effects of CSS and Javascript on Indexing Today's Web
  - Karl Gyllstrom, Carsten Eickhoff, Arjen P. de Vries, Marie-Francine Moens
- You Should Read This! Let Me Explain You Why
   Roi Blanco, Diego Ceccarelli, Claudio Lucchese, Raffaele Perego, Fabrizio Silvestri
- Characterizing Web Search Queries that Match Very Few or No Results

Ismail Sengor Altingovde, Roi Blanco, Berkant Barla Cambazoglu, Rifat Ozcan, Erdem Sarigil, ÷zg,r Ulusoy

- A Unified Optimization Framework for Auction and Guaranteed Delivery in Online Advertising Konstantin Salomatin, Tie-Yan Liu, Yiming Yang
- Modeling Browsing Behavior for Click Analysis in Sponsored Search Azin Ashkan, Charles L. A. Clarke
- Sentiment-Focused Web Crawling
  - Gural Vural, B. Barla Cambazoglu, Pinar Senkul
- User Guided Entity Similarity Search Using Meta-Path Selection in Heterogeneous Information Networks
  - Xiao Yu, Yizhou Sun, Brandon Norick, Tiancheng Mao, Jiawei Han
- GTE: A Distributional Second-Order Co-Occurrence Approach to Improve the Identification of Top Relevant Dates in Web Snippets
  - Ricardo Campos, GaÎl Dias, AlÌpio Jorge, CÈlia Nunes
- Stochastic Simulation of Time-Biased Gain
  - Mark D. Smucker, Charles L. A. Clarke
- SonetRank: Leveraging Social Networks to Personalize Search Abhijith Kashyap, Reza Amini, Vagelis Hristidis
- Predicting Web Search Success with Fine-grained Interaction Data Qi Guo, Dmitry Lagun, Eugene Agichtein
- Multi-Session Re-Search: In Pursuit of Repetition and Diversification Sarah K Tyler, Yi Zhang
- Theme Chronicle Model: Chronicle Consists of Timestamp and Topical Words over Each Theme Noriaki Kawamae
- Fast Top-K Similarity Queries Via Matrix Compression Yucheng Low, Alice X Zheng

#### **DB Track**

- Sort-based Query-adaptive Loading of R-trees
   Daniar Achakeev, Bernhard Seeger, Peter Widmayer
- Schema-Free Structured Querying of DBpedia Data Lushan Han, Tim Finin, Anupam Joshi
- Discovering Conditional Inclusion Dependencies
  Jana Bauckmann, Ziawasch Abedjan, Ulf Leser, Heiko M.ller, Felix Naumann
- Diversifying Query Results on Semi-Structured Data
   Mahbub Hasan, Abdullah Mueen, Vassilis Tsotras, Eamonn Keogh
- SliceSort: Efficient Sorting of Hierarchical Data Ouoc Trung Tran, Chee-Yong Chan
- Efficient Buffer Management for Piecewise Linear Representation of Multiple Data Streams Qing Xie, Jia Zhu, Mohamed A. Sharaf, xiaofang zhou, Chaoyi Pang
- On Skyline Groups
  - Chengkai Li, Nan Zhang, Naeemul Hassan, Sundaresan Rajasekaran, Gautam Das
- Finding the Optimal Path over Multi-Cost Graphs
   Yajun Yang, Jeffrey Xu Yu, Hong Gao, Jianzhong Li

- An Efficient Index for Massive IOT Data in Cloud Environment
   Youzhong Ma, Jia Rao, Weisong Hu, Xiaofeng Meng, Xu Han, Yu Zhang, Yunpeng Chai, Chunqiu Liu
- Clustering Wikipedia Infoboxes to Discover their Types
   Thanh Hoang Nguyen, Huong Dieu Nguyen, Viviane Moreira, Juliana Freire
- Keyword-based k-Nearest Neighbor Search in Spatial Databases Guoliang Li, Jing Xu, Jianhua Feng
- Credibility-Based Product Ranking for C2C Transactions Rong Zhang, Chao Feng Sha, Min qi Zhou, Ao ying Zhou
- Location Selection for Utility Maximization with Capacity Constraints Yu Sun, Jin Huang, Yueguo Chen, Rui Zhang, Xiaoyong Du
- Efficient Estimation of Dynamic Density Functions with an Application to Outlier Detection Abdulhakim Ali Qahtan, Xiangliang Zhang, Suojin Wang
- A Positional Access Method for Relational Databases Dongzhe Ma, Jianhua Feng, Guoliang Li
- Real-Time Aggregate Monitoring with Differential Privacy Liyue Fan, Li Xiong
- Efficient Distributed Locality Sensitive Hashing Bahman Bahmani, Ashish Goel, Rajendra Shinde
- Author-Conference Topic-Connection Model for Academic Network Search Jianwen Wang, Xiaohua Hu, Xinhui Tu, Tingting He
- Impact Neighborhood Indexing (INI) in Diffusion Graphs Jung Hyun Kim, K. Selcuk Candan, Maria Luisa Sapino
- Loyalty-based Selection: Retrieving Objects That Persistently Satisfy Criteria Zhitao Shen, Muhammad Aamir Cheema, Xuemin Lin
- Star-Join: Spatio-Textual Similarity Join Sitong Liu, Guoliang Li, Jianhua Feng
- Adapt: Adaptive Database Schema Design for Multi-Tenant Applications Jiacai Ni, Guoliang Li, Jun Zhang, Lei Li, Jianhua Feng
- A New Tool for Multi-Level Partitioning in Teradata
   Young-Kyoon Suh, Ahmad Ghazal, Alain Crolotte, Pekka Kostamaa
- Fast PCA Computation in a DBMS with Aggregate UDFs and LAPACK Carlos Ordonez, Naveen Mohanam, Carlos Garcia-Alvarado, Predrag T. Tosic, Edgar Martinez
- Scaling Multiple-Source Entity Resolution using Statistically Efficient Transfer Learning Sahand N Negahban, Benjamin I. P. Rubinstein, Jim Gemmell
- A Probabilistic Approach to Correlation Queries in Uncertain Time Series Data Mahsa Orang, Nematollaah Shiri
- On Bundle Configuration for Viral Marketing in Social Networks
   De-Nian Yang, Wang-Chien Lee, Nai-Hui Chia, Mao Ye, Hui-Ju Hung

#### **Conference Reception (6:40 – 9:00)**

**Room:** Maui Ballroom

### Wednesday, October 31, 2012

#### **Keynote Speech (8:30 - 9:30)**

Chair:

**Room:** Maui Ballroom

Title: Learning Similarity Measure based on Random Walks

**Speaker:** William Cohen, Carnegie Mellon University

#### **Coffee Break (9:30 - 10:15)**

#### Session 13 (10:15 - 12:20)

**KM Track:** Advertisement and Products

Chair:

Room: Wailuku

• Daily-Deal Selection for Revenue Maximization

Theodoros Lappas, Evimaria Terzi

• Enabling Direct Interest-Aware Audience Selection

Ariel Fuxman, Anitha Kannan, Zhenhui Li, Panayiotis Tsaparas

• Influence Propagation in Adversarial Setting: How to Defeat Competition with Least Amount of Investment

Shahrzad Shirazipourazad, Brian Bogard, Harsh Vachhani, Arunabha Sen, Paul Horn

- Large-scale Item Categorization for e-Commerce Dan Shen, Jean-David Ruvini, Badrul Sarwar
- Matching Product Titles using Web-based Enrichment Vishrawas
   Gopalakrishnan, Suresh Parthasarathy Iyengar, Amit Madaan, Rajeev Rastogi, Srinivasan Sengamedu

#### Session 14 (10:15 - 12:20)

**KM Track:** Clustering

Chair:

Room: Kahului

- Scalable Clustering of Signed Networks Using Balance Normalized Cut Kai-Yang Chiang, Joyce Jiyoung Whang, Inderjit S. Dhillon
- Maximum Margin Clustering on Evolutionary Data
   Xuhui Fan, Lin Zhu, Longbing Cao, Xia Cui, Yew-Soon Ong
- Document-Topic Hierarchies from Document Graphs
   Tim Weninger, Yonatan Bisk, Jiawei Han
- Improving Document Clustering Using Automated Machine Translation Xiang Wang, Buyue Qian, Ian Davidson
- Right-Protected Data Publishing with Hierarchical Clustering Preservation Michail Vlachos, Aleksander Wieczorek, Johannes Schneider

#### Session 15 (10:15 - 12:20)

IR Track: Recommendation Systems

Chair:

Room: Kihei and Wailea

Metaphor: A System for Related Search Recommendations
 Azarias Reda, Yubin Park, Mitul Tiwari, Christian Posse, Sam Shah

• Exploring Personal Impact for Group Recommendation Xingjie Liu, Yuan Tian, Mao Ye, Wang-Chien Lee

- The Efficient Imputation Method for Neighborhood-based Collaborative Filtering Yongli Ren, Gang Li, Jun Zhang, Wanlei Zhou
- Multi-Faceted Ranking of News Articles using Post-Read Actions Deepak Agarwal, Bee-Chung Chen, Xuanhui Wang
- A Decentralized Recommender System for Effective Web Credibility Assessment Thanasis G. Papaioannou, Jean-Eudes Ranvier, Alexandra Olteanu, Karl Aberer

#### Session 16 (10:15 - 12:20)

IR Track: Digital Libraries and Citation Analysis

Chair:

Room: Kapalua

- Towards an Effective and Unbiased Ranking of Scientific Literature through Mutual Reinforcement Xiaorui Jiang, Xiaoping Sun, Hai Zhuge
- A Math-Aware Search Engine for Math Question Answering System Tam T. Nguyen, Kuiyu Chang, Siu Cheung Hui
- Contextualization using Hyperlinks and Internal Hierarchical Structure of Wikipedia Documents Muhammad Ali Norozi, Paavo Arvola, Arjen P. de Vries
- Understanding Book Search Behavior on the Web Jinyoung Kim, Henry Feild, Marc Cartright
- Temporal Corpus Summarization Using Submodular Word Coverage Ruben Sipos, Adith Swaminathan, Pannaga Shivaswamy, Thorsten Joachims

#### Poster Session (10:15 - 12:20)

**KM Track** 

Chair:

Room: Napili

- Learning to Rank for Hybrid Recommendation
   Jiankai Sun, Shuaiqiang Wang, Byron J. Gao, Jun Ma
- Importance Weighted Passive Learning Shuaiqiang Wang, Xiaoming Xi, Yilong Yin
- A Tag-Centric Discriminative Model for Web ObjectsClassification Lina Yao, Quan Z. Sheng
- Outlier Detection using Centrality and Center-Proximity Duck-Ho Bae, Seo Jeong, Sang-Wook Kim, Minsoo Lee
- An Effective Category Classification Method Based on a Language Model for Question Category Recommendation on a cQA service

- Kyoungman Bae, Youngjoong Ko
- Clustering Short Text Using Ncut-weighted Non-negative Matrix Factorization Xiaohui Yan, Jiafeng Guo, Shenghua Liu, Xue-qi Cheng, Yanfeng Wang
- Polygene-based Evolution: A Novel Framework for Evolutionary Algorithms Shuaiqiang Wang, Byron J. Gao, Shuangling Wang, Guibao Cao, Yilong Yin
- A Tensor Encoding Model for Semantic Processing Michael Symonds, Peter D Bruza, Laurianne Sitbon, Ian Turner
- Accelerating Locality Preserving Nonnegative Matrix Factorization Guanhong Yao, Cai Deng
- The Twitaholic Next Door.
  - Patrick Bamba, Julien Subercaze, Christophe Gravier, Nabil Benmira, Jimi Fontaine
- Information Propagation in Social Rating Networks Priyanka Garg, Irwin King, Michael R. Lyu
- Maximizing Revenue from Strategic Recommendations under Decaying Trust Paul D, tting, Monika Henzinger, Ingmar Weber
- Weighted Linear Kernel with Tree Transformed Features For Malware Detection. Prakash Mandayam Comar, Lei Liu, Sabyasachi Saha, Antonio Nucci, Pang-Ning Tan
- Learning to Predict the Cost-Per-Click for Your Ad Words Chieh-Jen Wang, Hsin-Hsi Chen
- Dual Word and Document Seed Selection for Semi-supervised Sentiment Classification Shengfeng Ju, Shoushan Li, Yan Su, Guodong Zhou, Yu Hong, Xiaojun Li
- On Empirical Tradeoffs in Large Scale Hierarchical Classification Rohit Babbar, Ioannis Partalas, Eric Gaussier, Cecile Amblard
- An Interaction Framework of Service-oriented Ontology Learning Jingsong Zhang, Yinglin Wang, Hao Wei
- Infobox Suggestion for Wikipedia Entities Afroza Sultana, Quazi Mainul Hasan, Ashis Kumer Biswas, Soumyava Das, Habibur Rahman, Chris Ding, Chengkai Li
- Time Feature Selection for Identifying Active Household Members Pedro G. Campos, Alejandro Bellogin, Fernando Diez, Ivan Cantador
- Text Classification with Relatively Small Positive Documents and Unlabeled Data Fumiyo Fukumoto, Takeshi Yamamoto, Suguru Matsuyoshi, Yoshimi Suzuki
- On Compressing Weighted Time-evolving Graphs
   Wei Liu, Andrey Kan, Jeffrey Chan, James Bailey, Christopher Leckie, Jian Pei, Ramamohanarao Kotagiri
- Graph-based Collective Classification for Tweets
   Yajuan Duan, Furu Wei, Ming Zhou, Heung-Yeung Shum
- A Word-Order Based Graph Representation For Relevance Identification Lakshmi Ramachandran, Edward F Gehringer
- Tracing Clusters in Evolving Graphs with Node Attributes Brigitte Boden, Stephan G,nnemann, Thomas Seidl
- Prediction of Retweet Cascade Size over Time
   Andrey Kupavskii, Liudmila Ostroumova, Alexey Umnov, Svyatoslav Usachev, Pavel Serdyukov,
   Gleb Gusev, Andrey Kustarev

- An Efficient and Simple Under-sampling Technique for Imbalanced Time Series Classification Guohua Liang, Chengqi Zhang
- Top-N Recommendation through Belief Propagation
   Jiwoon Ha, Soon-Hyoung Kwon, Sang-Wook Kim, Christos Faloutsos, Sunju Park
- Mining Advices from Weblogs
   Alfan Farizki Wicaksono, Sung-Hyon Myaeng
- Parallel Proximal Support Vector Machine for High-Dimensional Pattern Classification Zhenfeng Zhu, Xingquan Zhu, Yangdong Ye, Yue-Fei Guo, Xiangyang Xue
- On Using Category Experts for Improving the Performance and Accuracy in Recommender Systems Won-Seok Hwang, Ho-Jong Lee, Sang-Wook Kim, Minsoo Lee
- Finding Influential Products on Social Domination Game Jinyoung Yeo, Jin-woo Park, Seung-won Hwang
- Entity Resolution using Search Engine Results
   Madian Khabsa, Pucktada Treeratpituk, C. Lee Giles
- Tweet Classification Based on Their Lifetime Duration Hikaru Takemura, Keishi Tajima
- Scalable Collaborative Filtering Using Incremental Update and Local Link Prediction Xiao Yang, Zhaoxin Zhang, Ke Wang
- Composing Activity Groups in Social Networks Cheng-Te Li, Man-Kwan Shan
- A Co-training based Method for Chinese Patent Semantic Annotation Xu Chen, Zhiyong Peng, Cheng Zeng
- Automatic Labeling Hierarchical Topics
  Xian-Ling Mao, Zhao-Yan Ming, Zheng-Jun Zha, Tat-Seng Chua, Hongfei Yan, Xiaoming Li
- An Unsupervised Method for Author Extraction from Web Pages Containing User-Generated Content Jing Liu, Xinying Song, Jingtian Jiang, Chin-Yew Lin
- Hierarchical Target Type Identification for Entity-oriented Queries Krisztian Balog, Robert Neumayer
- Dictionary based Sparse Representation for Domain Adaptation Rishabh Mehrotra, Rushabh Agrawal, Syed Aqueel Haider

#### **Demo Session (10:15 - 12:20)**

All three tracks

Chair:

Room: Kula and Hana

#### **KM Track**

- LUKe and MIKE:Learning from User Knowledge and Managing Interactive Knowledge Extraction Steffen Metzger, Michael Stoll, Katja Hose, Ralf Schenkel
- PRAVDA-live: Interactive Knowledge Harvesting
   Yafang Wang, Maximilian Dylla, Zhaochun Ren, Marc Spaniol, Gerhard Weikum
- 4Is of Social Bully Filtering: Identity, Inference, Influence, and Intervention Yunfei Chen, Lanbo Zhang, Aaron Michelony, Yi Zhang
- lonomics Atlas A Tool To Explore Interconnected Ionomic, Genomic and Environmental Data

Eduard C. Dragut, Mourad Ouzzani, Amgad Madkour, Nabeel Mohamed, Peter Baker, David E. Salt

- CarbonDB: a Semantic Life Cycle Inventory Database
  - Benjamin Bertin, Vasile-Marian Scuturici, Jean-Marie Pinon, Emmanuel Risler
- Supporting Temporal Analytics for Health-Related Events in Microblogs Nattiya Kanhabua, Sara Romano, Avarè Stewart, Wolfgang Nejdl
- InCaToMi: Integrative Causal Topic Miner Between Textual and Non-textual Time Series Data Hyun Duk Kim, ChengXiang Zhai, Thomas A. Rietz, Daniel Diermeier, Meichun Hsu, Malu Castellanos, Carlos A. Ceja Limon
- A Tool for Automated Evaluation of Algorithms
   Philipp Kranen, Stephan Wels, Tim Rohlfs, Sebastian Raubach, Thomas Seidl

#### **IR Track**

- A Summarization Tool for Time-Sensitive Social Media Walid Magdy, Ahmed Ali, Kareem Darwish
- CrowdTiles: Presenting Crowd-based Information for Event-driven Information Needs Stewart Whiting, Ke Zhou, Joemon Jose, Omar Alonso, Teerapon Leelanupab
- ESA: Emergency Situation Awareness via Microbloggers Jie Yin, Sarvnaz Karimi, Bella Robinson, Mark Cameron
- Cager: A Framework for Cross-page Search Zhumin Chen, Byron J. Gao, Qi Kang
- Mixed-Initiative Conversational System using Question-Answer Pairs Mined from the Web Wilson Wong, Lawrence Cavedon, John Thangarajah, Lin Padgham
- PicAlert!: A System for Privacy-Aware Image Classification and Retrieval Sergej Zerr, Stefan Siersdorfer, Jonathon Hare
- TASE: A Time-Aware Search Engine Sheng Lin, Peiquan Jin, Xujian Zhao, Lihua Yue
- Gumshoe Quality Toolkit: Administering Programmable Search
   Zhuowei Bao, Benny Kimelfeld, Yunyao Li, Sriram Raghavan, Huahai Yang
- Simultaneous Realization of Page-centric Communication and Search Yuhki Shiraishi, Jianwei Zhang, Yukiko Kawai, Toyokazu Akiyama
- MOUNA: Mining Opinions to Unveil Neglected Arguments Mouna Kacimi, Johann Gamper

#### **DB Track**

- MAGIK: Managing Completeness of Data
   Ognjen Savkovic, Mirza Paramita, Sergey Paramonov, Werner Nutt
- Exploration of Monte-Carlo based Probabilistic Query Processing in Uncertain Graphs
   Tobias Emrich, Hans-Peter Kriegel, Johannes Niedermayer, Matthias Renz, Andrè Suhartha,
   Andreas Z fle
- The Nautilus Analyzer: Understanding and Debugging Data Transformations Melanie Herschel, Hanno Eichelberger
- Demonstrating ProApproX 2.0: A Predictive Query Engine for Probabilistic XML Asma Souihli, Pierre Senellart
- HadoopXML: A Suite for Parallel Processing of Massive XML Data with Multiple Twig Pattern Queries
  Hyebong Choi, Kyong-Ha Lee, Soo-Hyong Kim, Yoon-Joon Lee, Bongki Moon
- MADden: Query-Driven Statistical Text Analytics

Christan Earl Grant, Joir-dan Gumbs, Kun Li, Daisy Zhe Wang, George Chitouras

- STFMap: Query- and Feature-Driven Visualization of Large Time Series Data Sets K. SelÁuk Candan, Rosaria Rossini, Maria Luisa Sapino, Xiaolan Wang
- Primates: A Privacy Management System for Social Networks
   Imen Ben Dhia, Talel Abdessalem, Mauro Sozio
- AMADA: Web Data Repositories in the Amazon Cloud Andrès Aranda-And'jar, Francesca Bugiotti, Jes's Camacho-Rodrìguez, Dario Colazzo, Fran\u00e1ois Goasdou\u00e0, Zoi Kaoudi, Ioana Manolescu

#### Lunch on you own (12:20 - 01:30)

### Session 17 (1:30 - 3:35)

**KM Track:** Text Mining

Chair:

Room: Wailuku

- TCSST: Transfer Classification of Short & Sparse Text Using External Data Guodong Long, Ling Chen, Xingquan Zhu, Chengqi Zhang
- The Generalized Dirichlet Distribution in Enhanced Topic Detection Karla L Caballero, Joel Barajas, Ram Akella
- Modeling Topic Hierarchies with the Recursive Chinese Restaurant Process Joon Hee Kim, Dongwoo Kim, Suin Kim, Alice Oh
- Two-part Segmentation of Text Documents Deepak P, Karthik Visweswariah, Nirmalie Wiratunga, Sadiq Sani
- On the Design of LDA Models for Aspect-based Opinion Mining Samaneh Moghaddam, Martin Ester

#### Session 18 (1:30 - 3:35)

IR Track: Formal Retrieval Models and Learning to Rank

Chair:

Room: Kahului

- Predicting Query Performance for Fusion-Based Retrieval Gad Markovits, Anna Shtok, Oren Kurland, David Carmel
- Back to the Roots: A Probabilistic Framework for Query-Performance Prediction Oren Kurland, Anna Shtok, Shay Hummel, Fiana Raiber, David Carmel, Ofri Rom
- Learning to Rank for Robust Question Answering
   Arvind Agarwal, Hema Raghavan, Karthik Subbian, Prem Melville, Richard D Lawrence, David C
   Gondek, James Fan
- Learning to Rank By Aggregating Expert Preferences
   Maksims N Volkovs, Hugo Larochelle, Richard S Zemel
- Learning to Rank Duplicate Bug Reports Jian Zhou, Hongyu Zhang

#### Session 19 (1:30 - 3:35)

DB Track: Probabilistic and Uncertain Data

Chair:

Room: Kihei and Wailea

- A Model-based Approach for RFID Data Stream Cleansing zhou zhao, Wilfred Ng
- What is the IQ of your Data Transformation System?
   Giansalvatore Mecca, Paolo Papotti, Salvatore Raunich, Donatello Santoro
- On the Foundations of Probabilistic Information Integration Fereidoon Sadri
- GPU Acceleration of Probabilistic Frequent Itemset Mining from Uncertain Databases Yusuke Kozawa, Toshiyuki Amagasa, Hiroyuki Kitagawa
- Completeness of Queries over SQL Databases Werner Nutt, Simon Razniewski

#### Session 20 (1:30 - 3:35)

**DB Track:** Top-k and Nearest Neighbor Queries

Chair:

Room: Kapalua

- Being Picky-Processing Top-K Queries with Set-Defined Selections Aleksandar Stupar, Sebastian Michel
- Finding Top k Most Influential Spatial Facilities over Uncertain Objects Liming Zhan, Ying Zhang, Wenjie Zhang, Xuemin Lin
- Efficient Safe-Region Construction for Moving Top-K Spatial Keyword Queries Weihuang Huang, Guoliang Li, Kian-Lee Tan, Jianhua Feng
- Monochromatic and Bichromatic Reverse Nearest Neighbor Queries on Land Surfaces
   Da Yan, Zhou Zhao, Wilfred Ng
- Pay-as-you-go Maintenance of Precomputed Nearest Neighbors in Large Graphs Tom Crecelius, Ralf Schenkel

#### Poster Session (1:30 - 3:35)

#### IR Track Chair:

Room: Napili

- Selecting Expansion Terms as a Set via Integer Linear Programming Qi Zhang, Yan Wu, Xuanjing Huang
- An Evaluation and Enhancement of Densitometric Fragmentation for Content Slicing Reuse Killian Levacher, Seamus Lawless, Vincent Wade
- Mathematical Equation Retrieval Using Plain Words as a Query Shinil Kim, Seon Yang, Youngjoong Ko
- Serial Position Effects of Clicking Behavior on Result Pages Returned by Search Engines Mingda Wu, Shan Jiang, Yan Zhang
- Towards Measruing the Visualness of a Concept Jin-Woo Jeong, Xin-Jing Wang, Dong-Ho Lee
- Fast Candidate Generation for Two-Phase Document Ranking: Postings List Intersection with Bloom Filters
  - Nima Asadi, Jimmy Lin
- Semantically Coherent Image Annotation with a Learning-based Keyword Propagation Strategy Chaoran Cui, Jun Ma, Shuaiqiang Wang, Shuai Gao, Tao Lian

- Language Processing for Arabic Microblog Retrieval Kareem Darwish, Walid Magdy, Ahmed Mourad
- Hierarchical Image Annotation Using Semantic Hierarchies Hichem Bannour, Cèline Hudelot
- On the Inference of Average Precision from ScoreDistributions Ronan Cummins
- An Evaluation of Corpus-driven Measures of Medical Concept Similarity for Information Retrieval Bevan Koopman, Guido Zuccon, Peter Bruza, Laurianne Sitbon, Michael Lawley
- A Constraint to Automatically Regulate Document-LengthNormalisation Ronan Cummins, Colm O'Riordan
- Bridging Offline and Online Social Graph Dynamics
   Manuel Gomez Rodriguez, Monica Rogati
- Predicting the Performance of Passage Retrieval for Question Answering Eyal Krikon, David Carmel, Oren Kurland
- Coarse-to-Fine Sentence-level Emotion Classification based on the Intra-sentence Features and Sentential Context
  - Jun Xu, Ruifeng Xu, Qin Lu, Xiaolong Wang
- Query-Performance Prediction and Cluster Ranking: Two Sides of the Same Coin Oren Kurland, Fiana Raiber, Anna Shtok
- Learning to Rank Search Results for Time-Sensitive Queries Nattiya Kanhabua, Kjetil N<sup>-</sup>rvÂg
- On Active Learning in Hierarchical Classification
   Yu Cheng, Kunpeng Zhang, Yusheng Xie, Ankit Agrawal, Alok Choudhary
- Question-Answer Topic Model for Question Retrieval in Community Question Answering Zongcheng Ji, Fei Xu, Bin Wang, Ben He
- How Do Humans Distinguish Different People with Identical Names on the Web? Harumi Murakami, Yuki Miyake
- Enhancing Product Search by Best-Selling Prediction in E-Commerce Bo Long, Jiang Bian, Anlei Dong, Yi Chang
- Survival Analysis for Freshness in Microblogging Search Gianni Amati, Giuseppe Amodeo, Carlo Gaibisso
- Information Preservation in Static Index Pruning Ruey-Cheng Chen, Chia-Jung Lee, Chiung-Min Tsai, Jieh Hsiang
- Temporal Models for Microblogs Jaeho Choi, W. Bruce Croft
- I want what I need! Analyzing Subjectivity of Online Forum Threads Prakhar Biyani, Cornelia Caragea, Amit Singh, Prasenjit Mitra
- Improving the Performance of the Reinforcement Learning Model for Answering Complex Questions Yllias Chali, Sadid A. Hasan, Kaisar Imam
- Relation Regularized Subspace Recommending for Related Scientific Articles
   Qing Zhang, Jianwu Li, Zhiping Zhang, Li Wang
- Exploring the Cluster Hypothesis, and Cluster-Based Retrieval, over the Web Fiana Raiber, Oren Kurland
- A Picture Paints a Thousand Words: a Method of Generating Image-text Timelines

Shize Xu, Liang Kong, Yan Zhang

- Short-Text Domain Specific Key Terms/Phrases Extraction Using an n-gram Model with Wikipedia M. Atif Qureshi, Colm ORiordan, Gabriella Pasi
- A New Probabilistic Model for Top-k Ranking Problem Shuzi Niu, Yanyan Lan, Jiafeng Guo, Xueqi Cheng
- Large Scale Analysis of Changes in English Vocabulary over Recent Time Adam Jatowt, Katsumi Tanaka
- Climbing the App Wall: Enabling Mobile App Discovery through Context-Aware Recommendations Alexandros Karatzoglou, Linas Baltrunas, Karen Church, Matthias B^hmer
- TwiSent: A Multistage System for Analyzing Sentiment inTwitter Subhabrata Mukherjee, Akshat Malu, Balamurali A.R., Pushpak Bhattacharyya
- Twitter Hyperlink Recommendation with User-Tweet-Hyperlink Three-way Clustering Dehong Gao, Renxian Zhang, Wenjie Li, Yuexian Hou
- Concavity in IR Models Stèphane Clinchant
- Extracting Interesting Association Rules from Toolbar Data Ilaria Bordino, Debora Donato, Barbara Poblete
- Predicting CTR of New Ads via Click Prediction
   Alexander Kolesnikov, Yury Logachev, Valeriy Topinskiy
- An Examination of Content Farms in Web Search using Crowdsourcing Richard McCreadie, Craig Macdonald, Iadh Ounis, Jim Giles, Ferris Jabr
- Demographic Context in Web Search Re-ranking Eugene Kharitonov, Pavel Serdyukov

#### Demo Session S2 (1:30 - 3:35)

Chair:

Room: Kula and Hana

All three tracks (Papers are listed in Demo Session S1)

#### Coffee Break (3:35 - 4:00)

#### Session 21 (4:00 - 5:40)

**KM Track:** Spatial and Temporal Methods

Chair:

Room: Wailuku

- Spatial Influence vs. Community Influence: Modeling the Global Spread of Social Media Krishna Y Kamath, James Caverlee, Zhiyuan Cheng, Daniel Z Sui
- TUT: A Statistical Model for Detecting Trends, Topics and User Interests in Social Media Xuning Tang, Christopher C. Yang
- Predicting Aggregate Social Activities Using Continuous-Time Stochastic Process Shu Huang, Min Chen, Bo Luo, Dongwon Lee
- Acquiring Temporal Constraints between Relations Partha Pratim Talukdar, Derry Wijaya, Tom Mitchell

#### Session 22 (4:00 - 5:40)

IR Track: Web Search

Chair:

Room: Kahului

• Towards Optimum Query Segmentation: In Doubt Without Matthias Hagen, Martin Potthast, Anna Beyer, Benno Stein

- Leaving So Soon? Understanding and Predicting Web Search Abandonment Rationales Abdigani Diriye, Ryen White, Georg Buscher, Susan Dumais
- Click Patterns: An Empirical Representation of Complex Query Intents Huizhong Duan, Emre Kiciman, ChengXiang Zhai
- Domain Dependent Query Reformulation for Web Search Van Dang, Giridhar Kumaran, Adam Troy

#### Session 23 (4:00 - 5:40)

**DB Track:** Web Data Management

Chair:

Room: Kihei and Wailea

- An Automatic Blocking Mechanism for Large-Scale De-duplication Tasks Anish Das Sarma, Ankur Jain, Ashwin Machanavajjhala, Philip Bohannon
- Processing Continuous Text Queries Featuring Non-Homogeneous Scoring Functions Nelly Vouzoukidou, Bernd Amann, Vassilis Christophides
- Comprehension-Based Result Snippets Abhijith Kashyap, Vagelis Hristidis
- An Effective Rule Miner for Instance Matching in a Web of Data Xing Niu, Shu Rong, Haofen Wang, Yong Yu

#### **Short Paper Session S7 (4:00 - 5:40)**

**IR Track:** Ranking and Recommendation

Chair:

**Room:** Kapalua

- Variance Maximization via Noise Injection for Active Sampling in Learning to Rank Wenbin Cai, Ya Zhang
- More Than Relevance: High Utility Query Recommendation By Mining Users' Search Behaviors Xiaofei Zhu, Jiafeng Guo, Xueqi Cheng, Yanyan Lan
- Recommending Citations: Translating Papers into References Wenyi Huang, Saurabh Kataria, Cornelia Caragea, Prasenjit Mitra, C. Lee Giles, Lior Rokach
- Discovering Logical Knowledge for Deep Question Answering Zhao Liu, Xipeng Qiu, Ling Cao, Xuanjing Huang
- Consento: A New Framework for Opinion Based Entity Search and Summarization
  Jaehoon Choi, Donghyeon Kim, Seongsoon Kim, Junkyu Lee, Sangrak Lim, Sunwon Lee, Jaewoo
  Kang
- Search Result Presentation Based on Faceted Clustering Benno Stein, Tim Gollub, Dennis Hoppe
- Entity Centric Query Expansion for Enterprise Search Xitong Liu, Hui Fang, Fei Chen, Min Wang

- Automatic Query Expansion Based on Tag Recommendation
   Vitor Oliveira, Guilherme Gomes, Fabiano Belem, Wladmir Brandao, Jussara Almeida, Nivio Ziviani, Marcos GonÁalves
- Query Recommendation for Children
   Sergio Duarte Torres, Djoerd Hiemstra, Ingmar Weber, Pavel Serdyukov

#### Poster Session (4:00 - 5:40)

IR + DB Track

Chair:

Room: Napili

#### IR Track

 On the Usefulness of Query Features for Learning to Rank Craig Macdonald, Rodrygo L.T. Santos, Iadh Ounis

• Session-based Query Performance Prediction

Andrey Kustarev, Yury Ustinovskiy, Anna Mazur, Pavel Serdyukov

- A Latent Pairwise Preference Learning Approach for Recommendation from Implicit Feedback Yi Fang, Luo Si
- Topic Based Pose Relevance Learning In Dance Archives
   Panda Based Callegrand Learning In Dance Archives
  - Reede Ren, John Collomosse, Joemon Jose
- PhotoFall: Discovering Weblog Stories Through Photographs Christopher Wienberg, Andrew S. Gordon
- RESQ: Rank-Energy Selective Query Forwarding for Distributed Search Systems Amin Teymorian, Xiao Qin, Ophir Frieder
- The Face of Quality in Crowdsourcing Relevance Labels Gabriella Kazai, Jaap Kamps, Natasa Milic-Frayling
- Data Filtering in Humor Generation
  - Pawel Dybala, Rafal Rzepka, Kenji Araki, Kohichi Sayama
- Predicting Primary Categories of Business Listings for Local Search Changsung Kang, Jeehaeng Lee, Yi Chang
- Where Do the Query Terms Come from? An Analysis of Query Reformulation in Collaborative Web Search
  - Zhen Yue, Jiepu Jiang, Shuguang Han, Daqing He
- Learning to Recommend with Social Relation Ensemble
  - Lei Guo, Jun Ma, Zhumin Chen, Haoran Jiang
- A Scalable Approach For Performing Proximal Search For Verbose Patent Search Queries Sumit Bhatia, Bin He, Qi He, Scott Spangler
- Is Wikipedia Too Difficult? Comparative Analysis of Readability of Wikipedia, Simple Wikipedia and Britannica
  - Adam Jatowt, Katsumi Tanaka
- Finding Food Entity Relationships using User-generated Data in Recipe Service Young-joo Chung
- SRGSIS: A Novel Framework Based on Social Relationship Graph for Social Image Search Bo Lu, Ye Yuan, Guoren Wang

- Exploring Simultaneous Keyword and Key Sentence Extraction: Improve Graph-based Ranking Using Wikipedia
  - Xun Wang, Lei Wang, Jiwei Li, Sujian Li
- Estimating Query Difficulty for News Prediction Retrieval Nattiya Kanhabua, Kjetil NrvÂg
- Recency-Sensitive Model of Web Page Authority
   Maxim Zhukovskiy, Dmitry Vinogradov, Gleb Gusev, Pavel Serdyukov, Andrei Raigorodskii
- Evaluating Reward and Risk for Vertical Selection
   Ke Zhou, Ronan Cummins, Mounia Lalmas, Joemon M. Jose
- Contextual Evaluation of Query Reformulations in a Search Session by User Simulation Jiepu Jiang, Daqing He, Shuguang Han, Zhen Yue, Chaoqun Ni

#### **DB Track**

- Information-complete and Redundancy-free Keyword Search Over Large Data Graphs Byron J. Gao, Zhumin Chen, Qi Kang
- Spatial-aware Interest Group Queries in Location-based Social Networks Yafei Li, Dingming Wu, Jianliang Xu, Byron Choi, Weifeng Su
- Probabilistic Ranking in Fuzzy Object Databases
  Thomas Bernecker, Tobias Emrich, Hans-Peter Kriegel, Matthias Renz, Andreas Z fle
- Enabling Ontology Based Semantic Queries in Biomedical Database Systems
   Shuai Zheng, Fusheng Wang, James Lu, Joel Saltz
- Similarity Search in 3D Object-Based Video Data
   Jakub Lokoc, Jurgen Wunschmann, Tomas Skopal, Albrecht Rothermel
- Continuous Top-k Query for Graph Streams Shirui Pan, Xingquan Zhu
- Latent Topics in Graph-Structured Data
   Christoph Bhm, Gjergji Kasneci, Felix Naumann

#### **Demo Session S3 (4:00 - 5:40)**

Chair:

Room: Kula and Hana

**All three tracks** (Papers are listed in Demo Session S1)

**Conference Banquet (6:30 - 9:30)** 

### Thursday, November 1, 2012

#### Conference Opening (8:10 - 8:30)

Room: Maui Ballroom

- Best paper Award Announcement
- CIKM2013 Presentation

#### **Keynote Speech (8:30 - 9:30)**

Chair:

Room: Maui Ballroom

**Title:** Compressed Data Structures with Relevance **Speaker:** Jeffrey S. Vitter, University of Kansas

#### **Coffee Break (9:30 - 10:15)**

#### **Industry Day Morning Session (10:15 - 12:20)**

Chair:

Room: Wailuku

- 10:15 10:20: Opening Remarks
- 10:20 11:05: Keynote Talk, Having a Great Career in Research Eric Brill, eBay
- 11:05 11:35, Is This Entity Relevant to Your Needs?

David Carmel, IBM Research

 11:35 – 12:20, Keynote Talk, The Future of Information Diversity and Search: Content Optimization, Interactivity, Semantics, and Social Networks Raghu Ramakrishnan, Microsoft

#### Session 24 (10:15 - 12:20)

**KM Track:** Information Extraction

Chair:

Room: Kahului

• Non-stationary Bayesian Networks based on Perfect Simulation

Yi Jia, Wenrong Zeng, Jun Huan

- Active Learning for Relation Type Extension with Local and Global Data Views Ang Sun, Ralph Grishman
- Segmenting Web-Domains and Hashtags using Length Specific Models Sriram Srinivasan, Sourangshu Bhattacharya, Rudrasis Chakraborty
- Crosslingual Distant Supervision for Extracting Relations of Different Complexity Andre Blessing, Hinrich Schütze
- Labeling by Landscaping: Classifying Tokens in Context by Pruning and Decorating Trees
   Siddharth Patwardhan, Branimir Boguraev, Apoorv Agarwal, Alessandro Moschitti, Jennifer Chu-Carroll

#### Session 25 (10:15 - 12:20)

IR Track: Topic Modeling and Content and Sentiment Analysis

Chair:

Room: Kihei and Wailea

• G-WSTD: A Framework For Geographic Web Search Topic Discovery Di Jiang, Jan Vosecky, Kenneth Wai-Ting Leung, Wilfred Ng

- Supporting Factual Statements with Evidence from the Web Chee Wee Leong, Silviu Cucerzan
- Role-explicit Query Identification and Intent Role Annotation Haitao Yu, Fuji Ren
- Understanding Book Search Behavior on the Web Jinyoung Kim, Henry Feild, Marc Cartright
- Joint Topic Modeling for Event Summarization across News and Social Media Streams Wei Gao, Peng Li, Kareem Darwish

#### Session 26 (10:15 - 12:20)

**DB Track:** Query Processing, Optimization and Performance

Chair:

Room: Kapalua

- CGStream: Continuous Correlated Graph Query for Data Streams Shirui Pan, Xingquan Zhu
- Efficient Influence-Based Processing of Market Research Queries Anastasios Arvanitis, Antonios Deligiannakis, Yannis Vassiliou
- Deco: Declarative Crowdsourcing Aditya Ganesh Parameswaran,
   Hyunjung Park, Hector Garcia-Molina, Neoklis Polyzotis, Jennifer Widom
- Predicting the Effectiveness of Keyword Queries on Databases Shiwen Cheng, Arash Termehchy, Vagelis Hristidis
- You Can Stop Early with COLA: Online Processing of Aggregate Queries in the Cloud Yingjie Shi, Xiaofeng Meng, Fusheng Wang, Yantao Gan

#### **Short Paper Session S8 (10:15 - 12:20)**

**KM Track:** Learning and Knowledge Discovery

Chair:

Room: Napili

- Hierarchical Co-Clustering Based on Entropy Splitting Wei Cheng, Xiang Zhang, Feng Pan, Wei Wang
- Adapting Vector Space Model to Ranking-based Collaborative Filtering Shuaiqiang Wang, Jiankai Sun, Byron J Gao, Jun Ma
- Joint Relevance and Answer Quality Learning for Question Routing in Community QA Guangyou Zhou, Kang Liu, Jun Zhao
- Learning Spectral Embedding via Iterative Eigenvalue Thresholding Fanhua Shang, L. C. Jiao, Yuanyuan Liu, Fei Wang
- Discovering Personally Semantic Places from GPS Trajectories Mingqi Lv, Ling Chen, Gencai Chen
- Swimming against the Streamz: Search and Analytics over the Enterprise Activity Stream

Ido Guy, Tal Steier, Maya Barnea, Inbal Ronen, Tal Daniel

- Frequent grams based Embedding for Privacy Preserving Record Linkage Luca Bonomi, Li Xiong, Rui Chen, Benjamin C. M. Fung
- If You are Happy and You Know It... Tweet

Amir Asiaee T., Mariano Tepper, Arindam Banerjee, Guillermo Sapiro

- Hierarchical Topic Integration Through Semi-supervised Hierarchical Topic Modeling Xian-Ling Mao, Jing He, Hongfei Yan, Xiaoming Li
- iSampling: Framework for Developing Sampling Methods Considering User's Interest Jinoh Oh, Hwanjo Yu
- Relational Co-Clustering via Manifold Ensemble Learning
   Ping Li, Jiajun Bu, Chun Chen, Zhanying He
- Measuring Website Similarity using an Entity-Aware Click Graph Pablo N Mendes, Peter Mika, Hugo Zaragoza, Roi Blanco
- A Hybrid Approach for Efficient Provenance Storage Yulai Xie, Dan Feng, Zhipeng Tan, Lei Chen, Kiran-Kumar Muniswamy-Reddy, Yan Li, Darrell D. E. Long

### **Short Paper Session S9 (10:15 - 12:20)**

IR Track: Search and Advanced IR

Chair:

Room: Kula and Hana

- Customizing Search Results for Non-Native Speakers Theodoros Lappas, Michail Vlachos
- Sketch-based Indexing of n-Words

Samuel Huston, J. Shane Culpepper, W. Bruce Croft

- Interactive and Context-Aware Tag Spell Check and Correction Francesco Bonchi, Ophir Frieder, Franco Maria Nardini, Fabrizio Silvestri, Hossein Vahabi
- From sBoW to dCoT Marginalized Encoders for Text Representation Zhixiang (Eddie) Xu, Minmin Chen, Kilian Q. Weinberger
- BiasTrust: Teaching Biased Users About Controversial Topics V.G.Vinod Vydiswaran, ChengXiang Zhai, Dan Roth, Peter Pirolli
- A Comprehensive Analysis of Parameter Settings for Novelty-Biased Cumulative Gain Teerapong Leelanupab, Guido Zuccon, Joemon M. Jose
- Differences in Effectiveness Across Sub-collections Mark Sanderson, Andrew Turpin, Ying Zhang, Falk Scholer
- Map to Humans and Reduce Error Crowdsourcing for Deduplication Applied to Digital Libraries Mihai Georgescu, Dang Duc Pham, Claudiu S. Firan, Wolfgang Nejdl, Julien Gaugaz
- You Should Read This! Let Me Explain You Why
   Roi Blanco, Diego Ceccarelli, Claudio Lucchese, Raffaele Perego, Fabrizio Silvestri
- User Guided Entity Similarity Search Using Meta-Path Selection in Heterogeneous Information Networks
  - Xiao Yu, Yizhou Sun, Brandon Norick, Tiancheng Mao, Jiawei Han
- Multi-Session Re-Search: In Pursuit of Repetition and Diversification Sarah K Tyler, Yi Zhang

 Fast Top-K Similarity Queries Via Matrix Compression Yucheng Low, Alice X Zheng

### **Lunch Provided by the Conference (12:20 - 01:30)**

#### **Industry Day Midday Session (1:30 - 3:35)**

Chair:

Room: Wailuku

• 1:30 – 2:00, Social Media, Data Integration, and Human Computation AnHai Doan, WalmartLabs and UW-Madison

 2:00 – 2:30, Question Answering Through Tencent Open Platform Chao Liu, Tencent

• 2:30 – 3:00, Data by the People, for the People Daniel Tunkelang, Linkedln

 3:00 – 3:30, Leveraging Data to Power Local Commerce Rajesh Parekh, Groupon

#### Session 27 (1:30 - 3:35)

KM Track: Classification and Semantic Methods

Chair:

Room: Kahului

- A Novel Local Patch Framework for Fixing Supervised Learning Models
   Yilei Wang, Bingzheng Wei, Jun Yan, Yang Hu, Zhi-Hong Deng, Zheng Chen
- Automated Feature Weighting in Naive Bayes for High-dimensional Data Classification Lifei Chen, Shengrui Wang
- Learning to Discover Complex Mappings from Web Forms to Ontologies Yuan An, Xiaohua Hu, Il-Yeol Song
- Modeling Semantic Relations between Visual Attributes and Object Categories via Dirichlet Forest Prior

Xin Chen, Xiaohua Hu, Zhongna Zhou, Yuan An, Tingting He, E.K. Park

 CoNet: Feature Generation for Multi-View Semi-Supervised Learning with Partially Observed Views Brian Quanz, Jun Huan

#### Session 28 (1:30 - 3:35)

IR Track: Multimedia and User Feedback

Chair:

Room: Kihei and Wailea

- Generating Facets for Phone-based Navigation of Structured Data Krishna Kummamuru, Ajith Jujjuru, Mayuri Duggirala
- The Effect of Aggregated Search Coherence on Search Behavior Jaime Arguello, Robert Capra
- Improving Bag-of-visual-Words Model with Spatial-Temporal Correlation for Video Retrieval Lei Wang, Dawei Song, Eyad Elyan
- Exploring and Predicting Search Task Difficulty

Jingjing Liu, Chang Liu, Michael Cole, Nicholas J. Belkin, Xiangmin Zhang

• Iterative Relevance Feedback with Adaptive Exploration/Exploitation Trade-off Nicolae Suditu, Fran,àö√Öois Fleuret

#### Session 29 (1:30 - 3:35)

**DB Track:** Emerging and Advanced Topics

Chair:

Room: Kapalua

 A Practical Concurrent Index for Solid-State Drives Risi Thonangi, Shivnath Babu, Jun Yang

• Robust Distributed Indexing for Locality-Skewed Workloads

Mu-Woong Lee, Seung-won Hwang

Efficient Provenance Storage For Relational Queries
 ZHIFENG BAO, Henning K^hler, Liwei Wang, Xiaofang Zhou, Shazia Sadiq

 Generically Extending Anonymization Algorithms to Deal with Successive Queries Manuel Barbosa, Alexandre Pinto, Bruno Gomes

Authentication of Moving Range Queries
 Duncan Yung, Eric Lo, Man Lung Yiu

#### **Short Paper Session S10 (1:30 - 3:35)**

**IR Track:** Click Models, Learning and Mining

Chair:

Room: Napili

- Do Ads Compete or Collaborate? Designing Click Models with Full Relationship Incorporated Xin Xin, Irwin King, Ritesh Agrawal, Michael R. Lyu, Heyan Huang
- Finding Nuggets in IP Portfolios: Core Patent Mining through Textual Temporal Analysis Po Hu, Minlie Huang, Peng Xu, Weichang Li, Adam K Usadi, Xiaoyan Zhu
- Exploiting Concept Hierarchy for Result Diversification

Wei Zheng, Hui Fang, Conglei Yao

- Semantic Context Learning with Large-Scale Weakly-Labeled Image Set Yao Lu, Wei Zhang, Ke Zhang, Xiangyang Xue
- Mining Noisy Tagging from Multi-label Space
   Zhongang Qi, Ming Yang, Zhongfei (Mark) Zhang, Zhengyou Zhang
- Learning from Mistakes: Towards a Correctable Learning Algorithm Karthik Raman, Krysta M Svore, Ran Gilad-Bachrach, Chris J.C. Burges
- PolariCQ: Polarity Classification of Political Quotations Rawia Awadallah, Maya Ramanath, Gerhard Weikum
- Modeling Browsing Behavior for Click Analysis in Sponsored Search Azin Ashkan, Charles L. A. Clarke
- User Activity Profiling with Multi-Layer Analysis Hongxia Jin
- Stochastic Simulation of Time-Biased Gain
  - Mark D. Smucker, Charles L. A. Clarke
- Predicting Web Search Success with Fine-grained Interaction Data Qi Guo, Dmitry Lagun, Eugene Agichtein

 Mining Sentiment Terminology Through Time Hadi Amiri, Tat-Seng Chua

#### **Short Paper Session S11 (1:30 - 3:35)**

**DB Track:** Advanced DB Topics

Chair:

Room: Kula and Hana

- Efficient Logging for Enterprise Workloads on Column-Oriented In-Memory Databases Johannes Wust, Joos-Hendrick Boese, Frank Renkes, Sebastian Blessing, Jens Krueger, Hasso Plattner
- Discovering Conditional Inclusion Dependencies
   Jana Bauckmann, Ziawasch Abedjan, Ulf Leser, Heiko M.ller, Felix Naumann
- Efficient Buffer Management for Piecewise Linear Representation of Multiple Data Streams Qing Xie, Jia Zhu, Mohamed A. Sharaf, xiaofang zhou, Chaoyi Pang
- On Skyline Groups
  - Chengkai Li, Nan Zhang, Naeemul Hassan, Sundaresan Rajasekaran, Gautam Das
- Clustering Wikipedia Infoboxes to Discover their Types
   Thanh Hoang Nguyen, Huong Dieu Nguyen, Viviane Moreira, Juliana Freire
- Efficient Estimation of Dynamic Density Functions with an Application to Outlier Detection Abdulhakim Ali Qahtan, Xiangliang Zhang, Suojin Wang
- Real-Time Aggregate Monitoring with Differential Privacy Liyue Fan, Li Xiong
- Efficient Distributed Locality Sensitive Hashing Bahman Bahmani, Ashish Goel, Rajendra Shinde
- Star-Join: Spatio-Textual Similarity Join Sitong Liu, Guoliang Li, Jianhua Feng
- Adapt: Adaptive Database Schema Design for Multi-Tenant Applications Jiacai Ni, Guoliang Li, Jun Zhang, Lei Li, Jianhua Feng
- Scaling Multiple-Source Entity Resolution using Statistically Efficient Transfer Learning Sahand N Negahban, Benjamin I. P. Rubinstein, Jim Gemmell
- On Bundle Configuration for Viral Marketing in Social Networks
   De-Nian Yang, Wang-Chien Lee, Nai-Hui Chia, Mao Ye, Hui-Ju Hung

#### **Coffee Break (3:35 - 4:00)**

#### <u>Industry Day Afternoon Session (4:00 - 6:00)</u>

Chair:

Room: Wailuku

- 4:00 4:45, Keynote Talk, Revolutionizing Digital Marketing with Big Data Analytics Tom Malloy, Adobe
- 4:45 5:15, Programming and Debugging Large-Scale Data Processing Workflows Christopher Olston, Google
- 5:15 6:00, Keynote Talk, From HyperText to HyperTEC Xuedong Huang, Microsoft

Session 30 (4:00 - 5:40)

**KM Track:** Novel Applications

Chair:

Room: Kahului

- Model the Complex Dependence Structures of Financial Variables by Using Canonical Vine Wei, Xuhui Fan, Jinyan Li, Longbing Cao
- A Unified Learning Framework for Auto Face Annotation by Mining Web Facial Images Dayong Wang, Steven Chu Hong Hoi, Ying He
- Efficient Jaccard-based Diversity Analysis of Large Document Collections Fan Deng, Stefan Siersdorfer, Sergej Zerr
- Knowing Where and How Criminal Organizations Operate Using Web Content Michele Coscia, Viridiana Rios

#### Session 31 (4:00 - 5:40)

IR Track: Social Networks

Chair:

Room: Kihei and Wailea

- Social Recommendation Across Multiple Relational Domains
   Meng Jiang, Peng Cui, Fei Wang, Qiang Yang, Wenwu Zhu, Shiqiang Yang
- Mining Competitive Relationships by Learning across Heterogeneous Networks
  Yang Yang, Jie Tang, Jacklyne Keomany, Yanting Zhao, Juanzi Li, Ying Ding, Tian Li, Liangwei
  Wang
- Evaluating Geo-Social Influence in Location-Based Social Networks
   Chao Zhang, Lidan Shou, Ke Chen, Gang Chen, Yijun Bei
- The Walls Have Ears: Optimize Sharing for Visibility and Privacy in Online Social Networks Thang N. Dinh, Yilin Shen, My T. Thai

#### **Short Paper Session S12 (4:00 - 5:40)**

IR Track: Social Media

Chair:

Room: Napili

- Trust Prediction via Aggregating Heterogeneous Social Networks Jin Huang, Feiping Nie, Heng Huang, Yi-Cheng Tu
- Diversionary Comments under Political Blog Posts
   Jing Wang, Clement T Yu, Philip S Yu, Bing Liu, Weiyi Meng
- Discover Breaking Events with Popular Hashtags in Twitter Anqi Cui, Min Zhang, Yiqun Liu, Shaoping Ma, Kuo Zhang
- Interest-Matching Information Propagation in Multiple Online Social Networks Yilin Shen, Thang N. Dinh, Huiyuan Zhang, My T. Thai
- Quality Models for Microblog Retrieval Jaeho Choi, W. Bruce Croft, Jin Young Kim
- Sentiment Analysis in Twitter with Lightweight Discourse Analysis Subhabrata Mukherjee, Pushpak Bhattacharyya, Balamurali A.R.
- Query-biased Learning to Rank for Real-time Twitter Search

- Xin Zhang, Ben He, Tiejian Luo, Baobin Li
- Location-Sensitive Resources Recommendation in Social Tagging Systems Chang Wan, Ben Kao, David W. Cheung
- Detecting Offensive Tweets via Topical Feature Discovery over a Large Scale Twitter Corpus Guang Xiang, Bin Fan, Ling Wang, Jason Hong, Carolyn Rose

# CIKM'12 Workshop Program

### Monday, October 29, 2012

# **DUBMMSM** - Data-driven User Behavioral Modelling and Mining from Social Media Room: Wailuku

9:00 - 9:15 am - Welcome and Introduction

9:15 - 9:30 am - Madness session (5 madness papers, 3 min each).

- Analyzing Social Media Friendship for Personalization Jonghyun Han, Hyunju Lee.
- A Collective Synchronous Behavior Model on Social Media Victor Liang, Vincent Ng
- Probabilistic Macro Behavioral Targeting Yusheng Xie
- Pinteresting: Towards a Better Understanding of User Interests -Ana-Maria Popescu
- The Framework of a People Recommender Based on a Time Series of User Preferences Kosuke Takano, Kin Fun Li

#### **9:30 - 10:30 am -** Paper Session 1 (2 paper + discussions)

- Ranking and Combining Social Network Data for Web Personalization Yi Zeng
- Please Spread: Recommending Tweets for Retweeting with Implicit Feedback Sheng Wang, Xiaobo Zhou, Ziqi Wang, Ming Zhang

10:30 - 11:00 am - Coffee Break

#### **11:00 - 12:00 pm - Paper Session 2 (2 paper + discussions)**

- Identifying and Characterizing User Communities on Twitter during Crisis Events Aditi Gupta,
   Anupam Joshi, Ponnurangam Kumaraguru
- Using Social Data for Resume Job Matching David Hardtke, Jacob Bollinger, Ben Martin

12:00 - 2 pm - Lunch

#### 2:00 - 3:30 pm - Paper Session 3 (3 paper + discussions)

- Twitter User Behavior Understanding with Mood Transition Prediction -Aditya Mogadala, Vasudeva Varma
- Analyzing Sentiments From Street Harassment Stories -Parvathi Chundi, April Corbet
- Modeling Online Collective Emotions -David Garcia, Frank Schweitzer

3:30 - 4:00 pm - Coffee Break

4:00 - 5:00 pm - Panel

**5:00 - 5:15 pm -** Closing remarks

# Monday, October 29, 2012

# CloudDB - 2012 The Third International Workshop on Cloud Data Management

Room: Kahulul

8:15-8:30 -- Welcome by the Chair

## 8:30-10:00 -- Keynote Session 1: OLTP

- 8:30-9:15 -- Keynote 1: Carlo Curino, Microsoft. Benchmarking OLTP/Web Databases in the Cloud: the OLTP-Bench Framework (Carlo Curino, Djellel Difallah, Andrew Pavlo, Phil Cudre-Mauroux)
- 9:15-10:00 -- Keynote 2: Prof. Mohamed Sharaf, The University of QueenslandData Freshness in Key-Value Data Stores

**10:00-10:30** -- Coffee Break

## 10:30-12:00 -- Session 1: Workload-Aware Processing

- 10:30-11:00 -- Toward Non-Intrusive Elastic Query Processing in the Cloud. Ticiana Coelho Da Silva, Mário Nascimento, Jose Macedo, Flávio R. C. Sousa, Javam Machado
- 11:00-11:30 -- The Yahoo! Cloud Datastore Load Balancer. Markus Klems, Adam Silberstein, Jianjun Chen, Masood Mortazavi, Andrews Albert Sahaya, P.P.S. Narayan
- 11:30-12:00 -- HEDC: A Histogram Estimator For Data in the Cloud. Yingjie Shi, Xiaofeng Meng, Fusheng Wang, Yantao Gan

12:00-1:30 -- Lunch

## 1:30-3:00 -- Keynote Session 2: Analytics and Social

- 1:30-2:15 -- Keynote 3: Prof. Geoffrey Fox, University of Indiana, Bloomington: Large Scale Data Analytics on Clouds
- 2:15-3:00 -- Keynote 4: Prof. Ashwin Machanavajjhala, Duke University: Challenges in Enabling Social Applications At Scale

**3:00-3:30** -- Coffee Break

## 3:30-5:30 -- Session 2: Security, Privacy, Analytics

- 3:30-3:55 -- Cloud Computing for Environment-Friendly Data Centers. Michael Pawlish, Aparna S. Varde, Stefan A. Robila
- 3:55-4:20 -- A Security Aware Stream Data Processing Scheme on the Cloud and its Efficient Execution Methods. Katsuhiro Tomiyama, Hideyuki Kawashima, Hiroyuki Kitagawa
- 4:20-4:55 -- Differentially Private Top-k Query over MapReduce. Xu Han, Miao Wang, Xiaojian Zhang, Xiaofeng Meng
- 4:55-5:20 -- Facilitating Real-Time Graph Mining. Zhuhua Cai, Dionysios Logothetis, Georgos Siganos

## **5:20-5:30** -- Wrap-up and Summary

# Monday, October 29, 2012

# WKR/CDMW - The 2012 International Workshop on Web-scale Knowledge Representation Retrieval and Reasoning & City Data Management 2012 Workshop

Room: Kihei

Introduction [Spyros Kotoulas (IBM Research)]

**Session 1** Web-scale Knowledge Representation, Retrieval and Reasoning. Session Chair: Yi Zeng (Chinese Academy of Sciences)

- A Distributed, Semiotic-Inductive, and Human-Oriented Approach to Web-Scale Knowledge Retrieval. Edy Portmann, Michael Alexander Kaufmann, Cédric Graf
- OmpiJava A Tool For Development Of High-Performance Reasoning Applications For The Semantic Web. Alexey Cheptsov
- Efficient Mining of Correlated Sequential Patterns Based on Null Hypothesis. Cindy Xide Lin, Ming Ji, Marina Danilevsky, Jiawei Han

Session 2 City Data Management . Session Chair: Spyros Kotoulas (IBM Research)

- DataBridges: Data Integration for Digital Cities. Melanie Herschel, Ioana Manolescu
- U2STRA: High-Performance Data Management of Ubiquitous Urban Sensing Trajectories on GPGPUs. Fatiha Amanzougarene, Mohamed Chachoua, Karine Zeitouni
- Qualitative Representation of Building Sites Annoyance. Jianting Zhang, Simin You, Le Gruenwald

**Discussion**, Chair: Yi Zeng (Chinese Academy of Sciences)

# Monday, October 29, 2012

# SHB - International Workshop on Smart Health and Wellbeing

Room: Wailea

# **Opening ceremony**

## **Keynote Speech**

## Session 1:

- Moving from Descriptive to Causal Analytics: Case Study of Discovering Knowledge from US Health Indicators Warehouse. Jack Schryver, Mallikarjun Shankar and Songhua Xu
- An Automated Data Utility Clustering Methodology using Data Constraint Rules. Stuart Morton, Malika Mahoui and P. Joseph Gibson
- Designing the Reconciled Schema for a Pharmacovigilance Data Warehouse Through a Temporally-Enhanced ER Model. Riccardo Lora, Alberto Sabaini, Carlo Combi and Ugo Moretti

#### Session 2:

- Towards Large-scale Twitter Mining for Drug-related Adverse Events. Jiang Bian, Umit Topaloglu and Fan Yu
- Social Media Mining for Drug Safety Signal Detection. Christopher C. Yang, Haodong Yang, Ling Jiang, and Mi Zhang

#### Session 3:

- An Architecture for Personalized Health Information Retrieval. Nikhil Yadav and Christian Poellabauer
- Combining Multi-level Evidence for Medical Record Retrieval. Dongging Zhu and Ben Carterette
- Simulating Prosthetic Vision with Distortions for Retinal Prosthesis Design. Mahadevan Subramaniam, Parvathi Chundi and Eyal Margalit

# Monday, October 29, 2012

BookOnline - Online Books, Complementary Social Media

Room: Kapalua

**8.50-9.00** Welcome

**9.00-10.10** Keynote

Session Chair: Gabriella Kazai (Microsoft Research)

Maribeth Back (FX Palo Alto)

Revisiting the Future of Reading: The Research and Design Behind XFR

**10.10-10.30** Session: Search and Discovery

Session Chair: Monica Landoni (University of Lugano)

eBook meets Tabletop: Using Collaborative Visualization for Search and Serendipity in On-line Book Repositories

R. Rädle, A. Weiler, S. Huber, H.-C. Jetter, S. Mansmann, H. Reiterer, and M. Scholl

**10.30-11.00** Coffee

**11.00-11.40** Session cont'd: Search and Discovery

Session Chair: Monica Landoni (University of Lugano)

Spread Co-citation Relationship as a Measure for Document Retrieval

M. Eto

Search and Exploration of Scanned Books

M.-A. Cartright, J. Dalton, and J. Allan

**11.45-12.25** Session: Personalization and Recommendation

Session Chair: Peter Brusilovsky (University of Pittsburgh)

Personalized Recommendations on Books for K-12 Readers

M. S. Pera and Y.-K. Ng

Stylometric Relevance-feedback towards a Hybrid Book Recommendation

**Algorithm** 

P. C. Vaz, D. M. de Matos, and B. Martins

**12.30-13.30** Lunch

**13.30-14.40** Keynote

Session Chair: Gabriella Kazai (Microsoft Research)

Natasa Milic-Frayling (Microsoft Research)

The Future of Digital

**14.40-15.20** Session: Reading Experience Beyond Text

Session Chair: Carsten Eickhoff (Delft University of Technology)

Accessible, Large-Print, Listening & Talking E-book (ALLT)

A. Attarwala, R. Baecker, and C. Munteanu

**Need for Automatically Generated Narration** 

D. A. Evans and J. Reichenbach

**15.20-16.00** Open-Discussion

**16.00-16.30** Coffee

**16.30-17.00** Open-Discussion cont'd

**17.00-17.30** Report back

**17.30** Close

# Monday, October 29, 2012

# DTMBIO - ACM Sixth International Workshop on Data and Text Mining in Biomedical Informatics

Room: Napili

**Session 1:** Keynote Address. Session Chair: Doheon Lee (KAIST, Korea)

• Gwan-Su Yi (KAIST)

Session 2: Mining Clinical Data and Text. Session Chair: Hua Xu (Vanderbilt University, US)

- Lexicon-free and context-free drug names identification methods using Hidden Markov Models and Pointwise Mutual Information (Jacek Malyszko; Agata Filipowska)
- Clinical Entity Recognition using Structural Support Vector Machines with Rich Features (Buzhou Tang; Hongxin Cao; Yonghui Wu; Min Jiang; Hua Xu)

## **Coffee Break**

- Inferring Appropriate Eligibility Criteria in Clinical Trial Protocols Without Labeled Data (Angelo Restificar; Sophia Ananiadou)
- Predicting Baby Feeding Method from Unstructured Electron Health Record (Ashwani Rao; Kristin Maiden; Benjamin Carterette; Deborah Ehrentha)
- Extracting Structured Information from Free-Text Medication Prescriptions Using Dependencies (Andrew MacKinlay; Karin Verspoor)

#### **Lunch Break**

Session 3: Mining Biological Data and Text. Session Chair: Min Song (Yonsei University, Korea)

- Indexing Methods for Efficient Protein 3D Surface Search. Sungchul Kim; Sael Lee; Hwanjo Yu
- Protein Complex Prediction via Bottleneck-Based Graph Partitioning. Jaegyoon Ahn; Dae Hyun Lee; Youngmi Yoon; Yunku Yeu; Sanghyun Park
- Finding associations among SNPs for prostate cancer using collaborative filtering. Rohit Kugaonkar;
   Aryya Gangopadhyay; Yelena Yesha; Anupam Joshi; Yaacov Yesha; Michael Grasso; Mary Brady;
   Napthali Rishe
- Prediction of E3-specific Substrates by Using Known E3-Substrate Network. Youngwoong Han;
   Gwan-Su Yi
- Detecting Type 2 Diabetes Causal SNP Combinations from GWAS Dataset with Optimal Filtration. Chiyong Kang; Hyeji Yu; Gwan-Su Yi

#### **Coffee Break**

- TNMCA: Generation and Application of Network Motif-Based Inference Models for Drug Repositioning. Jaejoon Choi; Kwangmin Kim; Min Song; Doheon Lee
- High Precision Rule Based PPI Extraction and Per-Pair Basis Performance. Junkyu Lee; Seongsoon Kim; Sunwon Lee; Kyubum Lee ; Jaewoo Kang

• Rule-based whole body modeling for analyzing multi-compound effects Woochang Hwang; Yongdeuk Hwang; Sunjae Lee; Doheon Lee

# Monday, October 29, 2012

# MIXHS - The 2nd International Workshop on Managing Interoperability and complexity in Health Systems

Room: Kula + Hana

09:00-9:10 Welcome

**9:10-10:40** Session 1: Ontology-based Application on Clinical Data. Session Chair: Guoqian Jiang, (Mayo Clinic, USA)

- Clinical Clarity versus Terminological Order The Readiness of SNOMED CT Concept Descriptors for Primary Care. Zhe He, Michael Halper, Yehoshua Perl and Gai Elhanan
- Extraction and analysis of the structure of labels in biomedical ontologies. Manuel Quesada-Martínez, Jesualdo Tomás Fernández-Breis and Robert Stevens
- Clinical Data Analysis using Ontology-guided Rule Learning. Hua Min and Janusz Wojtusiak

## 10:40-11:00 Coffee Break

**11:00-12:30** Session 2: Electronic Health Systems Interoperability and Integration. Session Chair: Cui Tao (Mayo Clinic, USA)

- Harmonization of Detailed Clinical Models with Clinical Study Data Standards. Guoqian Jiang, Julie Evans, Tom Oniki, Joey Coyle, Landen Bain, Stan Huff, Rebecca Kush and Christopher Chute
- Modeling UIMA Type System Using Web Ontology Language towards Interoperability among UIMA-based NLP Tools. Hongfang Liu, Stephen Wu, Cui Tao and Christopher Chute
- Quality Assessement of Electronic Health Information Management Systems. Matt-Mouley Bouamrane, Cui Tao and Frances Mair

#### 12:30-14:00 Lunch Break

**14:00-16:00** Session 3: Bio-Medical Knowledge Representation & Engineering. Session Chair: Hua Min, (George Mason University, USA)

- Construction and Maintenance of Clinical Pathway using Data Mining Methods. Shusaku Tsumoto, Haruko Iwata and Shoji Hirano
- Optimizing Semantic MEDLINE for Translational Science Studies Using Semantic Web Technologies. Cui Tao, Yuji Zhang, Guoqian Jiang, Matt Mouley Bouamrane and Christopher Chute
- Bridging the Unstructured and Structured Worlds: an Adaptive Self Learning Medical Form Generating System. Shuai Zheng, Fusheng Wang and James Lu
- A Hybrid Approach to Finding Negated and Uncertain Expressions in Biomedical Documents. Kazuki Fujikawa, Kazuhiro Seki and Kuniaki Uehara

## **16:00** Workshop Concluding remarks

# Friday, November 2, 2012

# PIKM - The 5th Ph.D. Workshop in Information and Knowledge Management

Room: Wailuku

**8:45** Opening: Aparna Varde

#### 9:00 Session 1: Database Systems

- 9:00 When Big Data Leads to Lost Data. V.M. Megler and David Maier
- 9:30 Querying External Source Code Files of Programs Connecting to a Relational Database. Carlos Garcia-Alvarado and Carlos Ordonez
- 10:00 SciQL: A Query Language for Unified Scientific Data Processing and Management. Javad Chamanara and Birgitta König-Ries

#### 10:30 Coffee Break

## 11:00 Session 2: Knowledge Management / Data Mining

- 11:00 Feature Selection for Link Prediction. Ye Xu and Dan Rockmore
- 11:30 Exploring and Analyzing Documents with Online Analytical Processing. Grzegorz Drzadzewski and Frank Tompa
- 12:00 Is That Scene Dangerous?: Transferring Knowledge Over a Video Stream. Omar U Florez and Curtis Dyreson

#### 12:30 Lunch Break

14:00 Keynote: Advice for Young Jedi Knights and PhD Students (Invited talk) Ingmar Weber

#### **15:00 Session 3:** Information Retrieval

• 15:00 iTop: Interaction Based Topic Centric Community Discovery on Twitter. Denzil Correa, Ashish Sureka and Mayank Pundir

#### 15:30 Coffee Break

- 16:00 Search Tactics as Means of Examining Search Processes in Collaborative Exploratory Web Search. Zhen Yue, Shuguang Han, Jiepu Jiang and Daqing He
- 16:30 Assessing the Relationship between Context, User Preferences, and Content in Search Behavior. Hanna Knäusl and Bernd Ludwig
- 17:00 Recommendation Using Linked Data. Rouzbeh Meymandpour and Joseph Davis

## 17:30-18:30 Session 4: Posters

- Intent-Aware Temporal Query Modeling for Keyword Suggestion. Fredrik Johansson, Tobias Färdig,
   Vinay Jethava and Svetoslav Marinov
- Towards an Advanced System for Real-Time Event Detection in High Volume Data Streams. Andreas Weiler, Svetlana Mansmann and Marc Scholl
- Multilevel Business Process Modeling: Motivation, Approach, Design Issues and Applications. Christoph Schütz, Michael Schrefl and Lois Delcambre
- Towards a More Efficient and Personalized Advertisement Content in On-line Social Networks. Patxi Galán-García, Carlos Laorden and Pablo G. Bringas

# Friday, November 2, 2012

# PLEAD - Politics, Elections and Data

Room: Kahului

#### Session 1:

Invited talk: "The Diffusion of Political Memes in Social Media" by Filippo Menczer

## Session 2:

- "From Twindex to PredictWise: A Quick Overview of Political Analysis Tools" by Ingmar Weber
- "Political Polarization and Popularity in Online Participatory Media: an Integrated Approach" by David Garcia, Fernando Mendez, Uwe Serdult and Frank

#### Session 3:

- "Party Cohesion in Presidential Races: Applying Social Network Theory to the 2011 Preprimary" by Andrew Dowdle, Song Yang, Scott Limbocker, Patrick Stewart and Karen Sebold
- "Opinions Network for Politically Controversial Topics" by Rawia Awadallah, Maya Ramanath and Gerhard Weikum
- "French Presidential Elections: What are the Most Efficient Measures for Tweets?" by Flavien Bouillot, Pascal Poncelet, Mathieu Roche, Dino Lenco, Elnaz Bigdeli and Stan Matwin

#### Session 4:

• "The Price of Precision: Voter Microtargeting and its Potential Harms to the Democratic Process" by Solon Barocas

Panel discussion with representatives from academia, industry and media; moderated by Ana-Maria Popescu

# Friday, November 2, 2012

# **ESAIR** - Fifth Workshop on Exploiting Semantic Annotations in Information Retrieval **Room**: Kihei

9:15-10:00 Keynote Session I: Keynote Presentation [Chair: Jussi Karlgren]

10:00-10:30 Coffee Break

**10:30-11:15** Keynote Session II: Keynote Presentation [Chair: Jaap Kamps]

### **11:15-12:30** Boaster and Poster Session [Chair: Jaap Kamps]

- Krisztian Balog and Kjetil Nørvåg / On the Use of Semantic Knowledge Bases for Temporally-aware Entity Retrieval
- Amitava Das and Björn Gambäck / Exploiting 5W Annotations for Opinion Tracking
- Ann-Marie Eklund / Why query annotations may help in providing accurate public health information
- Sumio Fujita, Georges Dupret and Ricardo Baeza-Yates / Semantics of Query Rewriting Patterns in Search Logs
- Arunav Mishra, Sairam Gurajada and Martin Theobald / Design and Evaluation of an IR-Benchmark for SPARQL Queries with Full-text Conditions
- Tadashi Nomoto and Noriko Kando / Conceptualizing Documents with Wikipedia
- Sana Sellami and Claudia Catalin Gutiérrez Rodríguez / Semantic Annotation: What About Quality?
- Petr Sojka / Exploiting Semantic Annotations in Math Information Retrieval
- Giovanni Yoko Kristianto, Goran Topic, Minh-Quoc Nghiem and Akiko Aizawa / Annotating Scientific Papers for Mathematical Formulae Search
- Masaharu Yoshioka and Noriko Kando / Multifaceted analysis of news articles by using semantic annotated information

#### 12:30-14:00 Lunch

**14:00-15:30** Breakout session: Two breakout groups in parallel

- semantic search [Chair/Reporter: Jussi Karlgren/Peter Mika]
- structured retrieval [Chair/Reporter: Vanessa Murdock/Jaap Kamps]

#### 15:30-16:00 Coffee

**16:00-17:30** Final session [Chair: tba]: Reporting from breakout groups and concluding remarks.

**18:00++** Social program: Dinner and symposium drinks and continued discussion!

# Friday, November 2, 2012

# ClowdSens - 1st International Workshop on Multimodal Crowd Sensing

Room: Wailea

## **Keynote Address**. Session Chair: Haggai Roitman (IBM Research)

• Invited Talk, Ido Guy: Crowdsourcing in the enterprise

## **Session 1**. Session Chair: Haggai Roitman (IBM Research)

- Algorithm for Representative Democracy Voting in Social Network. Zeinab Saeidi
- Conceptual Modeling Principles for Crowdsourcing. Roman Lukyanenko; Jeffrey Parsons
- Event Detection using Twitter and Structured Semantic Query Expansion. Heather S. Packer; Sina Samangooei; Jonathon S. Hare; Nicholas Gibbins; Paul Lewis

## **Invited Talk.** Session Chair: Haggai Roitman (IBM Research)

 Invited Talk, Manuel Cebrian: Using Friends as Sensors to Detect Planetary-Scale Contagious Outbreaks

## **Session 2.** Session Chair: Haggai Roitman (IBM Research)

- Harnessing the Crowds for Smart City Sensing. Haggai Roitman; Jonathan Mamou; Sameep Mehta;
   Aharon Satt; L. V. Subramaniam
- Greaaaat bargains starting from just 99p!!!! :-) Brand Perception in the Social Media. Michal Shmueli-Scheuer; Benjamin Sznajder; Doron Cohen; Ariel Raviv; David Konopnicki, Haggai Roitman

**Session 3:** Discussion. Session Chair: Haggai Roitman (IBM Research)

# Friday, November 2, 2012

# IKM2DR - Information and Knowledge Management for Developing Regions

Room: Kapalua

## First AM Session: (chair: Nitendra Rajput)

- Keynote address [Ricardo Baeza--Yates, Yahoo]
- Direction Setting Panel (Ricardo Baeza--Yates, Doug Oard, Nitendra Rajput)

## Second AM Session: (chair: Luz Quiroga)

- Domain--specific search in Indian Languages [Nikihil Pattisapu, SKYPE]
- Speech retrieval for India [Pekka Kallioniemi]
- Query by Babbling for speech retrieval [Doug Oard]
- Named entity recognition for Indian Languages (Mahathi Bhagavatula, SKYPE)

Lunch and Discussion Tables: Two discussion tables, led by Krishna Kummamuru, Luz Quiroga

# First PM Session: (chair: William Webber)

- Invited talk (abstract uploaded) [Anitha Kannan, MSR]
- Two parallel breakout sessions to develop a research agenda (Facilitator: Rajput)

## Second PM Session: (chair: Doug Oard)

- Report--outs from the three breakout sessions (by group-selected reporters)
- Future directions panel discussion (Luz Quiroga, Nitendra Rajput, William Webber)

## **No--Host Evening Events:**

- Drinks: 5:30 PM Hula Grill (sunset is 5:54 PM)
- Dinner: 6:30 PM Hula Grill

# Friday, November 2, 2012

# **WIDM - Twelfth International Workshop on Web Information and Data Management Room:** Napili

## 8:45-9:00 Welcome

### 9:00-10:00 Keynote

• Search Beyond the Web: Data from Social Networks and Native Apps. Maria Grineva.

#### 10:00-10:30 Web Data I

 Modeling Topic Trends on the Social Web Using Temporal Signatures. Laura Christiansen, Thomas Schimoler, Robin Burke and Bamshad Mobasher.

## 10:30-11:00 Coffee break

#### 11:00-12:30 Web Data II

- XPath satisfiability with downward and sibling axes is tractable under most of real-world DTDs. Yasunori Ishihara, Kenji Hashimoto, Shogo Shimizu and Toru Fujiwara.
- A Multi-layer Data Representation of Trajectories in Social Networks Based on Points of Interest. Reinaldo Braga, Ali Tahir, Michela Bertolotto and Hervé Martin.
- A Distributed Index for Efficient Parallel Top-k Keyword Search on Massive Graphs. Ming Zhong and Mengchi Liu.

## 12:30-14:00 Lunch break

#### 14:00-15:30 Web Context

- Managing Analysis Context. Hua Li and Rafael Alonso.
- Using Social Tags to Infer Context in Hybrid Music Recommendation. Negar Hariri, Bamshad Mobasher and Robin Burke.
- SNOPS: a smart environment for Cultural Heritage applications. Vincenzo Moscato, Antonio Picariello, Angelo Chianese, Flora Amato and Giancarlo Sperlì.

#### **15:30-16:00** Coffee break

## 16:00-17:30 Web Information Engineering

- Web Crawler Middleware for Search Engine Digital Libraries: A Case Study for CiteSeerX. Jian Wu, Pradeep Teregowda, Madian Khabsa, Douglas Jordan and C. Lee Giles.
- TitleFinder: Extracting the Headline of News Web Pages based on Cosine Similarity and Overlap Scoring Similarity. Hadi Mohammadzadeh, Thomas Gottron, Franz Schweiggert and Gerhard Heyer.
- M3D: A Tool for the Model Driven Development of Web Applications. Mario Luca Bernardi, Marta Cimitile, Giuseppe Di Lucca and Fabrizio Maria Maggi.

## 17:30-17:45 Closing remarks

# Friday, November 2, 2012

# DOLAP - Fifteenth International Workshop on Data Warehousing and OLAP

**Room:** Kula + Hana

8:30-8:45 Workshop Welcome and Introduction. Matteo Golfarelli

8:45-9:30 Invited Talk. Chair: Il-Yeol Song

• Kostamaa, Pekka - Teradata. Efficient Big Data Analytics using SQL and Map-Reduce

## 9:30-10:45 Session 1: OLAP Query processing and Trends. Chair: Alkis Simitsis

- Bernd Neumayr, Stefan Anderlik and Michael Schrefl. Towards Ontology-based OLAP: Datalog-based Reasoning over Multidimensional Ontologies (25 mins)
- Patrick Marcel, Rokia Missaoui and Stefano Rizzi. Towards Intensional Answers to OLAP Queries for Analytical Sessions (25 mins)
- Carlos Garcia-Alvarado and Carlos Ordonez. Query Processing on Cubes with Dimension Ontologies (25 mins)

## 11:05-13:00 Session 2: Data Warehouse Design and Maintainability. Chair: Alfredo Cuzzocrea

- Petar Jovanovic, Oscar Romero, Alkis Simitsis and Alberto Abello. ORE: An Iterative Approach to the Design and Evolution of Multi-Dimensional Schemas (25 mins)
- Svetlana Mansmann, Nafees Ur Rehman, Andreas Weiler and Marc H Scholl. Discovering OLAP dimensions in semi-structured data (25 mins)
- Nicolas Prat, Imen Megdiche and Jacky Akoka. Multidimensional Models Meet the Semantic Web: Defining and Reasoning on OWL-DL Ontologies for OLAP (25 mins)
- Alejandro Mate, Juan Trujillo, Elisa De Gregorio and Il-Yeol Song. Improving the Maintainability of Data Warehouse Designs: Modeling Relationships between Sources and Requirements (25 mins)
- Stefan Berger and Michael Schrefl. FedDW Global Schema Architect UML-based Design Tool for the Integration of Logical Data Mart Schemas (16 mins)

#### 13:00-14:00 Lunch break

#### 14:00-15:45 Session 3: Performance and Benchmarking. Chair: Carlos Ordonez

- Stephan Mueller. An In-Depth Analysis of Data Aggregation Cost Factors in a Columnar In-Memory Database (25 mins)
- Chantola Kit, Marouane Hachicha and J. Darmont. Benchmarking Summarizability Processing in XML Warehouses with Complex Hierarchies(16 mins)
- Craig Stanfill. Type 2 Slowly Changing Dimensions: A Case Study Using the Co>Operating System. (16 mins)
- Jianting Zhang, Simin You and Le Gruenwald. High-Performance Online Spatial and Temporal Aggregations on Multi-core CPUs and Many-Core GPUs (16 mins)
- Doulkifli Boukraa, Omar Boussaid, Fadila Bentayeb and Djamel Eddine Zegour. Managing a Fragmented XML Data Cube with Oracle and Timesten (16 mins)
- Arian Baer and Lukasz Golab. Towards Benchmarking Stream Data Warehouses (16 mins)

**16:05-17:30 Session 4:** Warehousing complex data. Chair: Patrick Marcel

- Elio Masciari. Warehousing and Querying Trajectory Data Streams With Error Estimation (25 mins)
- Michel De Rougemont and Phuong Thao Cao. Approximate Answers to OLAP Queries on Streaming Data Warehouses (25 mins)
- Alfredo Cuzzocrea and Paolo Serafino. Enhanced Clustering of Complex Database Objects in the ClustCube Framework (16 mins)
- Mu Yin, Bin Wu and Zengfeng Zeng. HMGraph OLAP: A Novel Framework for Multi-dimensional Heterogeneous Network Analysis (16 mins)