



PROGRAM & TIMETABLE



ISMIS 2009 Prague

**18th International Symposium on
Methodologies for Intelligent Systems**

**The University of Economics, Prague, Czech Republic
September 14 - 17, 2009**



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18th International Symposium on Methodologies for Intelligent Systems

The University of Economics, Prague - Czech Republic
September 14 - 17, 2009

SEPTEMBER 14, 2009 – Monday

13:00 - 14:00	Workshop Registration	Rajská Building - by LH 211
14:00 - 17:45	Workshop	Lecture Hall 211
17:00 - 20:00	ISMIS 2009 Registration	New Building - by Hall C

SEPTEMBER 15, 2009 - Tuesday

08:30 - 09:15	ISMIS 2009 Registration	New Building - by Hall C
09:15 - 09:30	Opening by Rector of The University of Economics, Prague - <i>Richard Hindls</i> & ISMIS General Chair - <i>Zbigniew W. Raś</i> Chair: <i>Jan Rauch</i>	Hall C
09:30 - 10:30	Plenary Talk I Chair: <i>Tapio Elomaa</i> Randomization Methods for Assessing the Significance of Data Mining Results <i>Heikki Mannila</i>	Hall C
10:30 - 10:50	Coffee Break	
10:50 - 12:30	Session 1A: Knowledge Discovery and Data Mining Chair: <i>Jerzy Stefanowski</i>	Lecture Hall 211
10:50 - 11:15	Frequent Itemset Mining in Multirelational Databases <i>Aída Jiménez, Fernando Berzal & Juan-Carlos Cubero</i>	
11:15 - 11:40	A Multiple Scanning Strategy for Entropy Based Discretization <i>Jerzy W. Grzymala-Busse</i>	
11:40 - 12:05	Fast Subgroup Discovery for Continuous Target Concepts <i>Martin Atzmueller & Florian Lemmerich</i>	
12:05 - 12:30	Discovering Emerging Graph Patterns from Chemicals <i>Guillaume Poezevara, Bertrand Cuissart & Bruno Crémilleux</i>	
10:50 - 12:55	Session 1B: Applications of Intelligent Systems in Medicine Chair: <i>Shusaku Tsumoto</i>	Lecture Hall 212
10:50 - 11:15	Medical Decision Making through Fuzzy Computational Intelligent Approaches <i>Elpiniki Papageorgiou</i>	
11:15 - 11:40	Fuzzy Cognitive Map Based Approach for Assessing Pulmonary Infections <i>Elpiniki Papageorgiou, Nikolaos Papandrianos & Georgia Karagianni</i>	
11:40 - 12:05	A Knowledge-based Framework for Information Extraction from Clinical Practice Guidelines <i>Corrado Loglisci, Michelangelo Ceci & Donato Malerba</i>	

12:05 - 12:30	RaJoLink: A Method for Finding Seeds of Future Discoveries in Nowadays Literature <i>Tanja Urbančič, Ingrid Petrič & Bojan Cestnik</i>
12:30 - 12:55	A Distributed Immunization Strategy Based on Autonomy-Oriented Computing <i>Jiming Liu, Chao Gao & Ning Zhong</i>

12:30 - 14:00 Lunch Break

14:00 - 15:40	Session 2A: Knowledge Discovery and Data Mining <i>Chair: Michelangelo Ceci</i>	Lecture Hall 211
14:00 - 14:25	Visualization Trends by RadViz <i>Lenka Nováková & Olga Štěpánková</i>	
14:25 - 14:50	Action Rules Discovery Based on Tree Classifiers and Meta-Actions <i>Zbigniew W. Raś & Agnieszka Dardzińska</i>	
14:50 - 15:15	Action Rules and The GUHA Method – Preliminary Considerations and Results <i>Jan Rauch & Milan Šimůnek</i>	
15:15 - 15:40	Semantic Analytical Reports: A Framework for Postprocessing Data Mining Results <i>Tomáš Kliegr, Martin Ralbovský, Vojtěch Svátek, Jan Nemrava & Jan Zemánek</i>	

14:00 - 15:40	Session 2B: Logical and Theoretical Aspects of Intelligent Systems <i>Chair: Neil Murray</i>	Lecture Hall 212
14:00 - 14:25	Automatic Generation of P2P Mappings between Sources Schemas <i>Karima Toumani, H�elene Jaudoin & Michel Schneider</i>	
14:25 - 14:50	An OWL Ontology for Fuzzy OWL 2 <i>Fernando Bobillo & Umberto Straccia</i>	
14:50 - 15:15	Fuzzy Clustering for Categorical Spaces: An Application to Semantic Knowledge Bases <i>Nicola Fanizzi, Claudia d'Amato & Floriana Esposito</i>	
15:15 - 15:40	Reasoning about Relations with Dependent Types: Application to Context-aware Applications <i>Richard Dapoigny & Patrick Barlatier</i>	

15:40 - 16:00 Coffee Break

16:00 - 17:40	Session 3A: Text Mining <i>Chair: Vojtěch Svátek</i>	Lecture Hall 211
16:00 - 16:25	Theme Extraction from Chinese Web Documents Based on Page Segmentation and Entropy <i>Deqing Wang, Hui Zhang & Gang Zhou</i>	
16:25 - 16:50	Topic-based Hard Clustering of Documents Using Generative Models <i>Giovanni Ponti & Andrea Tagarelli</i>	
16:50 - 17:15	Boosting a Semantic Search Engine by Named Entities <i>Annalina Caputo, Pierpaolo Basile & Giovanni Semeraro</i>	
17:15 - 17:40	Detecting Temporal Trends of Technical Phrases by Using Importance Indices and Linear Regression <i>Hidenao Abe & Shusaku Tsumoto</i>	

16:00 - 17:40	Session 3B: Logical and Theoretical Aspects of Intelligent Systems <i>Chair: Yves Kodratoff</i>	Lecture Hall 212
16:00 - 16:25	Quasi-classical Model Semantics for Logic Programs–A Paraconsistent Approach <i>Zhihu Zhang, Zuoquan Lin & Shuang Ren</i>	
16:25 - 16:50	Prime Implicates and Reduced Implicate Tries <i>Neil Murray & Erik Rosenthal</i>	
16:50 - 17:15	Logic for Reasoning about Components of Persuasive Actions <i>Katarzyna Budzynska, Magdalena Kacprzak & Pawel Rembelski</i>	
17:15 - 17:40	A Hybrid Method of Indexing Multiple-inheritance Hierarchies <i>Jacek Lewandowski & Henryk Rybinski</i>	
18:30	Meeting Point: by the Registration Desk (Rajská Building - by Lecture Hall 211)	
	Sightseeing Cruise on Vltava River & Welcome Reception at the Michna Palace (Part of the Tyrš House, Újezd 450, Prague 1, Old Town)	

SEPTEMBER 16, 2009 – Wednesday

09:00 - 10:00	Plenary Talk II <i>Chair: Petr Berka</i> Dealing with Music in Intelligent Ways <i>Gerhard Widmer</i>	Hall C
10:00 - 10:20	Coffee Break	
10:20 - 12:00	Session 4A: Applications of Intelligent Systems in Music <i>Chair: Gerhard Widmer</i>	Lecture Hall 211
10:20 - 10:45	Detecting Emotion in Classical Music from MIDI Files <i>Jacek Grekow & Zbigniew W. Raś</i>	
10:45 - 11:10	Mining Musical Patterns: Identification of Transposed Motives <i>Fernando Berzal, Waldo Fajardo, Aída Jiménez & Miguel Molina-Solana</i>	
11:10 - 11:35	Musical Instruments in Random Forest <i>Miron Kursá, Witold Rudnicki, Alicja Wieczorkowska, Elzbieta Kubera & Agnieszka Kubik-Komar</i>	
11:35 - 12:00	Application of Analysis of Variance to Assessment of Influence of Sound Feature Groups on Discrimination Between Musical Instruments <i>Alicja Wieczorkowska & Agnieszka Kubik-Komar</i>	
10:20 - 12:00	Session 4B: Information Processing <i>Chair: Djamel A. Zighed</i>	Lecture Hall 212
10:20 - 10:45	Alternative Formulas for Rating Prediction Using Collaborative Filtering <i>Amar Saric, Mirsad Hadzikadic & David Wilson</i>	
10:45 - 11:10	On Three Classes of Division Queries Involving Ordinal Preferences <i>Patrick Bosc, Olivier Pivert & Olivier Soufflet</i>	


11:10 - 11:35	Analyses of Knowledge Creation Processes Based on Different Types of Monitored Data <i>Ján Paralič, František Babič, Jozef Wágner, Ekaterina Simonenko, Nicolas Spyrtos & Tsuyoshi Sugibuchi</i>
11:35 - 12:00	Intelligent Information Processing in Semantically Enriched Web <i>Pavol Návrat, Mária Bieliková, Daniela Chudá & Viera Rozinajová</i>

12:00 - 14:00 Lunch Break

14:00 - 15:00	Plenary Talk III <i>Chair: Zbigniew W. Raś</i> Intelligent Systems: From R.U.R. to ISMIS 2009 and Beyond <i>Maria Zemankova</i>	Hall C
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15:00 - 15:20 Coffee Break

15:20 - 17:25	Session 5A: Agents <i>Chair: David Wilson</i>	Lecture Hall 211
15:20 - 15:45	Modeling Ant Activity by Means of Structured HMMs <i>Guenael Cabanes, Dominique Fresnau, Attilio Giordana & Ugo Galassi</i>	
15:45 - 16:10	Modern Approach for Building of Multi-Agent Systems <i>Lukasz Chomatek & Aneta Poniszewska-Marańda</i>	
16:10 - 16:35	Relational Sequence Clustering for Aggregating Similar Agents <i>Grazia Bombini, Nicola Di Mauro, Stefano Ferilli & Floriana Esposito</i>	
16:35 - 17:00	FutureTrust Algorithm in Specific Factors on Mobile Agents <i>Michal Wolski & Mieczysław Kłopotek</i>	
17:00 - 17:25	Top-k Retrieval for Automated Human Resource Management <i>Umberto Straccia, Eufemia Tinelli, Tommaso Di Noia, Eugenio Di Sciascio & Simona Colucci</i>	

15:20 - 17:25	Session 5B: Machine Learning <i>Chair: Henryk Rybinski</i>	Lecture Hall 212
15:20 - 15:45	Ensembles of Abstaining Classifiers Based on Rule Sets <i>Jerzy Stefanowski, Jerzy Błaszczński & Magdalena Zajac</i>	
15:45 - 16:10	Elicitation of Sugeno Integrals: A Version Space Learning Perspective <i>Henri Prade, Agnes Rico & Mathieu Serrurier</i>	
16:10 - 16:35	Efficient MAP Inference for Statistical Relational Models through Hybrid Metaheuristics <i>Marenglen Biba, Stefano Ferilli & Floriana Esposito</i>	
16:35 - 17:00	Combining Time and Space Similarity for Small Size Learning under Concept Drift <i>Indrė Žliobaitė</i>	
17:00 - 17:25	Similarity and Kernel Matrix Evaluation Based on Spatial Autocorrelation Analysis <i>Vincent Pisetta & Djamel A. Zighed</i>	
19:00	Meeting Point: by the Registration Desk (Rajská Building - by Lecture Hall 211)	
19:30	Conference Dinner at the Municipal House (Obecní dům) (náměstí Republiky 5, Praha 1, Old Town) - please have your invitation card with	

SEPTEMBER 17, 2009 – Thursday

09:00 - 10:00	Plenary Talk IV <i>Chair: Olga Štěpánková</i> The Art of Management and The Technology of Knowledge-Based Systems <i>Jozef Kelemen & Ivan Polášek</i>	Hall C
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10:00 - 10:20 Coffee Break

10:20 - 12:00	Session 6A: Applications of Intelligent Systems <i>Chair: Henri Prade</i>	Lecture Hall 211
10:20 - 10:45	Automatic Profiling System for Ranking Candidates Answers in Human Resources with Relevance Feedback <i>Rémy Kessler, Nicolas Béchet, Juan Manuel Torres-Moreno, Mathieu Roche & Marc El-Béze</i>	
10:45 - 11:10	Discovering Structured Event Logs from Unstructured Audit Trails for Workflow Mining <i>Liqiang Geng, Scott Buffett, Bruce Hamilton, Xin Wang, Larry Korba, Hongyu Liu & Yunli Wang</i>	
11:10 - 11:35	GIS-FLSolution: A Spatial Analysis Platform for Static and Transportation Facility Location Allocation <i>Wei Gu, Xin Wang & Liqiang Geng</i>	
11:35 - 12:00	A CBR System for Knowing the Relationship between Flexibility and Operations Strategy <i>Daniel Arias-Aranda, Juan Luis Castro, Maria Navarro & José Manuel Zurita</i>	

10:20 - 12:00	Session 6B: Complex Data <i>Chair: Erik Rosenthal</i>	Lecture Hall 212
10:20 - 10:45	Discovering Relevant Cross-Graph Cliques in Dynamic Networks <i>Loïc Cerf, Tran Bao Nhan Nguyen & Jean-Francois Boulicaut</i>	
10:45 - 11:10	Statistical Characterization of a Computer Grid <i>Lovro Ilijašić & Lorenza Saitta</i>	
11:10 - 11:35	On Social Networks Reduction <i>Václav Snášel, Zdeněk Horák, Jana Kočibová & Ajith Abraham</i>	
11:35 - 12:00	Networks Consolidation through Soft Computing <i>Sami Habib</i>	

12:00 - 14:00 Lunch Break

14:00 - 15:40	Session 7A: Applications of Intelligent Systems & Complex Data <i>Chair: Jozef Kelemen</i>	Lecture Hall 211
14:00 - 14:25	A New Strategy based on GRASP to solve a Macro Mine Planning <i>María-Cristina Riff, Eridan Otto & Xavier Bonnaire</i>	
14:25 - 14:50	Food Wholesales Prediction: What is Your Baseline? <i>Jorn Bakker & Mykola Pechenizkiy</i>	
14:50 - 15:15	Lacking Labels In The Stream: Classifying Evolving Stream Data With Few Labels <i>Mohammed Masud, Clay Woolam & Latifur Khan</i>	

15:15 - 15:40	Novelty Detection from Evolving Complex Data Streams with Time Windows <i>Michelangelo Ceci, Annalisa Appice, Corrado Loglisci, Costantina Caruso, Fabio Fumarola & Donato Malerba</i>	
14:00 - 16:05	Session 7B: General AI & Uncertainty <i>Chair: Jerzy W. Grzymala-Busse</i>	Lecture Hall 212
14:00 - 14:25	On Computational Creativity, 'Inventing' Theorems <i>Marta Fraňová & Yves Kodratoff</i>	
14:25 - 14:50	Enhancing Constraint Models for Planning Problems <i>Roman Barták & Daniel Toropila</i>	
14:50 - 15:15	Interval-Valued Fuzzy Formal Concept Analysis <i>Yassine Djouadi & Henri Prade</i>	
15:15 - 15:40	Application of Meta Sets to Character Recognition <i>Bartłomiej Starosta</i>	
15:40 - 16:05	A General Framework for Revising Belief Bases Using Qualitative Je Rey's Rule <i>Salem Benferhat, Henri Prade, Didier Dubois & Mary-Anne Williams</i>	
16:05 - 16:15	Closing	Lecture Hall 212

Sponsoring and Supporting Institutions

	Laboratory for Intelligent Systems, Faculty of Informatics and Statistics, University of Economics, Prague
	Seznam.cz, a.s.
	Československá obchodní banka, a. s.
	The Czech Society for Cybernetics and Informatics
	TOVEK, spol. s r.o.
	Springer-Verlag Berlin Heidelberg