

Archive

Contributed by Chris Cornelis
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Past conferences

The 2015 International Joint Conference on Rough Sets (IJCRS 2015)

Tianjin, China, November 20-23, 2015 Submission deadline: May 17, 2015 We welcome your participation and contribution to the 2015 International Joint Conference on Rough Sets (IJCRS 2015), a joint conference of the 10th International Conference on Rough Sets and Knowledge Technology (RSKT 2015) and the 16th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC 2015).

IJCRS 2015 was organized for the first time in 2007 and was re-established in 2012 as the major flagship IRSS-sponsored event gathering different rough-set-related conferences and workshops every year. In keeping with the aims of the past conferences, IJCRS 2015 provides opportunity to explore synergies between rough sets and state-of-the-art knowledge technologies, in terms of both foundations and applications. This year, it will provide a forum for researchers and practitioners interested in rough sets, fuzzy sets, intelligent systems, complex data analysis and big data analysis & applications.

The proceedings are intended to be published by Springer's Lecture Notes in Computer Science (LNCS) Series, and authors of the best papers will be invited to extend their papers for inclusion in special issues of selected ISI-ranked journals.

Authors of selected high-quality papers presented at IJCRS 2015 will be invited later to submit extended versions for possible inclusion (after a peer review) in international journals.

The symposium will be held in Tianjin, a municipality of China.
The topics relevant to IJCRS 2015 include, but are not limited to:

- Foundations and Generalizations of Rough Sets
- Bayesian Rough Sets
- Calculi of Approximation Spaces Covering-based Rough Sets
- Decision-theoretic Rough Sets Dominance-based Rough Sets
- Game-theoretic Rough Sets
- Near Sets, Neighborhood Rough Sets
- Probabilistic Rough Sets
- Rough Sets in (Dynamic) Networks of Information Systems
- Rough Granular Computing
- Rough Mereology
- Rough Uncertainty
- Rough Sets in Data and Knowledge Processing:
- Adaptive Approximate Reasoning about Knowledge (Adaptive Judgment)
- Interaction of Knowledge Sources
- Interactive Rough Granular Computing
- Hybridization of Rough Sets with Other Approaches, Applications of Rough Sets, Knowledge Technology Issues:
- Affective Computing
- Approximate & Uncertain Reasoning
- Big Data Analytics and Applications
- Cloud Computing
- Computing with Words
- Decision Support Systems
- Domain-oriented Data-driven Data Mining
- Evolutionary Computing
- Formal Concept Analysis
- Fuzzy Set Theory & Applications
- Granular Computing
- Hybrid Methods in Software Engineering
- Intelligent Systems
- Interactive Computing
- Knowledge Discovery & Data Mining
- Machine Learning

- Multi Agent Systems
 - Methods of Bioinformatics
 - Multiple Criteria Decision Aiding
 - Multimedia Applications
 - Natural Computing
 - Neural Networks
 - Pattern Recognition & Image Processing
 - Perception based Computing
 - Petri Nets & Concurrency
 - Process Mining & Intelligent Planning
 - Semantic Web
 - Signal Processing
 - Social Networks
 - Spatio-Temporal Data Mining & Reasoning
 - Three-way Decisions
 - Web Intelligence & Web Mining
- Important dates:
- Special session proposals submission deadline: May 17, 2015
 - Tutorial proposals submission deadline: May 17, 2015
 - Paper submission deadline: May 17, 2015
 - Review result notification: June 17, 2015
 - Final paper submission deadline: August 5, 2015

6th Rough Set Theory Workshop (RST'2015)

Warsaw, Poland, June 29, 2015 Submission deadline: May 25, 2015 The ROUGH SET THEORY (RST) SERIES OF WORKSHOPS is devoted to the state-of-the-art and future prospects of ROUGH SETS considered from a theoretical standpoint. ROUGH SETS were introduced by Zdzisław Pawlak in the early eighties and developed further as a mathematical method of knowledge representation and processing under uncertain data and incomplete information. Nowadays, ROUGH SET THEORY is widely recognised to have a great importance in several fields, which is witnessed by the increasing number of papers concerned with applications and theoretical foundations of ROUGH SETS.

Topics of interest include, but are not limited to:

- #Algebraic structures in rough set theory
- #Belief functions in connection with rough sets
- #Complexity of rough set-related problems
- #Dynamics in rough sets
- #Granular computing
- #Many-valued logics
- #Near sets and nearness approximation spaces
- #Philosophical aspects of rough set theory
- #Relationship with other paradigms
- #Rough logics
- #Rough mereology
- #Rough sets in approximate reasoning
- #Rough sets and ontology approximation
- #Rough sets in reasoning about changes
- #Theoretical aspects of rough entropies
- #Topological and modal approaches to roughness

This year we are very proud and happy to host four plenary speakers:

MIHIR CHAKRABORTY: Foundations of Rough Sets

JAN RAUCH: GUHA Method and Association Rules

PRADIPTA MAJI: Fuzzy-Rough Clustering and its Applications

MIKHAIL MOSHKOV: Decision Rule Systems and Decision Trees over Finite Binary Information Systems (talk co-authored with Beata Zielosko)

The present edition of RST WORKSHOP comprises the special track:

FOUNDATIONS OF RULE-BASED APPROACHES AND RELATIONSHIP WITH ROUGH SETS

Therefore potential authors may submit their contributions to the main (multi-topic) part of the workshop or to the special track. The authors are asked to prepare 1 or 2 pages long abstracts formatted in Springer LNCS style. It is also expected that one of the authors will present the full paper at the workshop. The authors are asked to send their submissions to the RST’2015 Chairs:

Dominik Slezak, slezak@mimuw.edu.pl, University of Warsaw
 Marcin Wolski, maarten.wolski@gmail.com, Maria Curie-Skłodowska University

Special Issue

A special issue of *Fundamenta Informaticae* collecting full versions of selected papers presented at the workshop is already confirmed. Further details will be announced in due course.

10th International Symposium Advances in Artificial Intelligence and Applications (AAIA'2015)

Lodz, Poland, September 13 - 16, 2015 Submission deadline: April 24, 2015 The AAIA'15 will bring researchers, developers, practitioners, and users to present their latest research, results, and ideas in all areas of artificial intelligence. We hope that theory and successful applications presented at the AAIA'15 will be of interest to researchers and practitioners who want to know about both theoretical advances and latest applied developments in Artificial Intelligence. As such AAIA'15 will provide a forum for the exchange of ideas between theoreticians and practitioners to address the important issues.

Papers related to theories, methodologies, and applications in science and technology in this theme are especially solicited. Topics covering industrial issues/applications and academic research are included, but not limited to:

- Knowledge Management
- Decision Support Systems
- Approximate Reasoning
- Fuzzy Modeling and Control
- Data Mining
- Web Mining
- Machine Learning
- Combining Multiple Knowledge Sources in an Integrated Intelligent System
- Neural Networks
- Evolutionary Computation
- Nature Inspired Methods
- Natural Language Processing
- Image Processing and Interpreting
- Applications in Bioinformatics
- Hybrid Intelligent Systems
- Granular Computing
- Architectures of Intelligent Systems
- Robotics
- Real-world Applications of Intelligent Systems
- Rough Sets

Professor Zdzislaw Pawlak Best Paper Awards

We are proud to announce that we will continue the tradition started during the AAIA'06 Symposium and award two "Professor Zdzislaw Pawlak Best Paper Awards" for contributions which are outstanding in their scientific quality. The two award categories are:

- Best Student Paper - for graduate or PhD students. Papers qualifying for this award must be marked as "Student full paper" to be eligible for consideration.
- Best Paper Award for the authors of the best paper appearing at the Symposium.

Candidates for the awards can come from AAiA and all workshops organized within its framework (i.e. AIMaViG, AIMA, ASIR, CEIM, LQMR, WCO).

In addition to a certificate, each award carries a prize of 300 EUR provided by the Mazowsze Chapter of the Polish Information Processing Society.

16th World Congress of the International Fuzzy Systems Association and 9th Conference of the European Society for Fuzzy Logic and Technology (IFSA-EUSFLAT'2015)

Gijón, Spain, June 30 - July 3, 2015 Submission deadline: January 16, 2015 The 16th World Congress of the International Fuzzy Systems Association (IFSA) and the 9th Conference of the European Society for Fuzzy Logic and

Technology (EUSFLAT) will be jointly held by summer 2015 in Gijón, Asturias (Spain). The aim of this conference is to bring together researchers (both theoreticians and practitioners) all along the world working on fuzzy logic, fuzzy systems, soft computing and related areas. Thus, scientists, engineers, students, and professionals will discuss, exchange ideas, foster interaction between industry and academy through building multidisciplinary linkages, and disseminate the most recent advancements in the field.

Of specific interest to researchers in the rough set community are the following special sessions: Special session on Representing and Managing Vagueness: Different Scenarios, Different Tools. The notion of vagueness has been extensively analysed in the last decades by philosophers, logicians and computer scientists. Here we are interested in the vagueness originated by different characteristics and flaws in information: incompleteness, imprecision, graduality, granularity, contradiction between agents, etc. For each of these aspects one (or more) specific tool has been introduced in literature: fuzzy sets, rough sets, possibility theory, formal concept analysis, interval analysis, etc. Further, when more than one form of vagueness are present at the same time, it seems natural to fuse such tools, as in the fuzzy rough set case. The special session is devoted to collect all contributions that deal with scenarios leading to a form of vagueness and tools to represent and manage it. In particular, all critical discussions, comparisons among two or more forms of vagueness and/or comparisons and fusion of two or more tools are welcome.

The not exhaustive list of topics includes:((

- rough sets (classical, probabilistic, game-theoretic, etc…)
- fuzzy rough sets
- interval-valued fuzzy sets
- possibility theory
- supervaluations
- paraconsistent logics
- near sets
- interval analysis
- grey sets
- non-classical logics (many valued, paraconsistent, epistemic,...)

Organizers

Davide Ciucci, Università degli Studi di Milano-Bicocca, ciucci@disco.unimib.it
 Chris Cornelis, University of Granada, chriscornelis@ugr.es
 Jesús Medina, University of Cádiz, jesus.medina@uca.es

Special session on Fuzzy Logic, Formal Concept Analysis, Mathematical Morphology and related topics. Fuzzy Logic, Formal Concept Analysis and Mathematical Morphology are three important tools to handle information from databases. The purpose of this Special Session is to provide an international forum for presentation of recent results, advances and interactions among these important tools.

The not exhaustive list of topics includes:((

- Fuzzy sets and fuzzy logic
- Logic programming
- Formal concept analysis
- Fuzzy relation equations
- Mathematical morphology
- Aggregation operators in relational data analysis

Organizers

Jesús Medina, University of Cádiz, jesus.medina@uca.es
 Manuel Ojeda Aciego, University of Málaga, aciego@uma.es
 Dominik Slezak, University of Warsaw & Infobright Inc., slezak@mimuw.edu.pl

9th International Conference on Rough Sets and Knowledge Technology (RSKT 2014)

Shanghai, China, October 24-26, 2014 Submission deadline: May 31, 2014 The 9th International Conference on Rough Sets and Knowledge Technology (RSKT 2014) will be held at Tongji University in Shanghai, China, October 24-26, 2014.

RSKT was organized for the first time in 2006. As a major flagship IRSS-sponsored event, it aims to present the state-of-the-art scientific results, encourage academic and industrial interaction, and promote collaborative research in rough sets and knowledge technology worldwide.

The topics relevant to RSKT 2014 include, but are not limited to:

- (1) Foundations and Generalizations of Rough Sets Bayesian Rough Sets
 - * Calculi of Approximation Spaces
 - * Covering-based Rough Sets
 - * Decision-theoretic Rough Sets
 - * Dominance-based Rough Sets
 - * Game-theoretic Rough Sets
 - * Near Sets
 - * Neighborhood Rough Sets
 - * Neighborhood Rough Sets
 - * Rough Sets in (Dynamic) Networks of Information Systems
 - * Rough Granular Computing
 - * Rough Mereology
 - * Rough Uncertainty
- (2) Rough Sets in Data and Knowledge Processing
 - * Adaptive Approximate Reasoning about Knowledge (Adaptive Judgment)
 - * Interaction of Knowledge Sources
 - * Interactive Rough Granular Computing
 - * Ontology Approximation
 - * Rough Sets in Knowledge Discovery, Data Mining, Machine Learning & Pattern Recognition
- (3) Hybridization of Rough Sets with Other Approaches
- (4) Applications of Rough Sets
- (5) Knowledge Technology Issues
 - * Affective Computing
 - * Approximate & Uncertain Reasoning
 - * Cloud Computing
 - * Computing with Words
 - * Decision Support Systems
 - * Domain-oriented Data-driven Data Mining
 - * Evolutionary Computing
 - * Formal Concept Analysis
 - * Fuzzy Set Theory & Applications
 - * Granular Computing
 - * Hybrid Methods in Software Engineering
 - * Intelligent Systems
 - * Interactive Computing
 - * Knowledge Discovery & Data Mining
 - * Machine Learning
 - * Multi Agent Systems
 - * Methods of Bioinformatics
 - * Multiple Criteria Decision Aiding
 - * Multimedia Applications
 - * Natural Computing
 - * Neural Networks
 - * Pattern Recognition & Image Processing
 - * Perception based Computing
 - * Petri Nets & Concurrency
 - * Process Mining & Intelligent Planning
 - * Semantic Web
 - * Signal Processing
 - * Social Networks
 - * Spatio-Temporal Data Mining & Reasoning
 - * Web Intelligence & Web Mining

Special sessions and workshops:

- * Special Session on Domain-Oriented Data-Driven Data Mining (Organizers: Andrzej Skowron, Guoyin Wang, Yiyu Yao)

- * Special Session on Uncertainty Analysis in Granular Computing: An Information Entropy-Based Perspective (Organizers: Lin Shang, Hongyun Zhang)
- * The Fifth Rough Set Theory Workshop (Organizers: Davide Ciucci, Yanyong Guan, Marcin Wolski)
- * Advances in Granular Computing Workshop (Organizers: Andrzej Bargiela, Wei-Zhi Wu, William Zhu, Fan Min, Athanasios Vasilakos, JingTao Yao)
- * The First International Workshop on Big Data to Wise Decisions (Organizers: Andrzej Skowron, Guoyin Wang, Jiye Liang, Vijay V. Raghavan, Jie Tang, Yiyu Yao)
- * The Second International Workshop on Three-way Decisions, Uncertainty, and Granular Computing (Organizers: Tianrui Li, Salvatore Greco, Jerzy W. Grzymala-Busse, Ruizhi Wang, Dun Liu, Pawan Lingras)

Important dates:

1. Paper submission - May 31, 2014
2. Paper acceptance notification - June 20, 2014
3. Camera ready paper submission - July 6, 2014

9th International Symposium Advances in Artificial Intelligence and Applications (AAIA'14)

Warsaw, Poland, September 7-10, 2014

Submission deadlines:

April 23, 2014 (Regular papers)

May 11, 2014 (Position papers)

The AAIA'14 will bring researchers, developers, practitioners, and users to present their latest research, results, and ideas in all areas of artificial intelligence. We hope that theory and successful applications presented at the AAIA'14 will be of interest to researchers and practitioners who want to know about both theoretical advances and latest applied developments in Artificial Intelligence. As such AAIA'14 will provide a forum for the exchange of ideas between theoreticians and practitioners to address the important issues.

Topics

Papers related to theories, methodologies, and applications in science and technology in this theme are especially solicited. Topics covering industrial issues/applications and academic research are included, but not limited to:

- Knowledge Management
- Decision Support Systems
- Approximate Reasoning
- Fuzzy Modeling and Control
- Data Mining
- Web Mining
- Machine Learning
- Combining Multiple Knowledge Sources in an Integrated Intelligent System
- Neural Networks
- Evolutionary Computation
- Nature Inspired Methods
- Natural Language Processing
- Image Processing and Interpreting
- Applications in Bioinformatics
- Hybrid Intelligent Systems
- Granular Computing
- Architectures of Intelligent Systems
- Robotics
- Real-world Applications of Intelligent Systems
- Rough Sets2014 Joint Rough Set Symposium (JRS 2014)

Granada and Madrid, Spain, July 9-13, 2014

Submission deadlines:

March 19, 2014 (Abstracts)

March 23, 2014 (Full papers)

The 2014 Joint Rough Set Symposium (JRS 2014) encapsulates the 9th International Conference on Rough Sets and Current Trends in Computing (RSCTC 2014) and the 2nd International Conference on Rough Sets and Intelligent Systems Paradigms (RSEISP 2014).

JRS was organized for the first time in 2007 and was re-established in 2012 as the major flagship IRSS-sponsored event gathering different rough-set-related conferences and workshops every year. This year it will provide a forum for researchers and practitioners interested in rough sets, fuzzy sets, intelligent systems, and complex data analysis.

Conference topics relate to

Theory, Foundations and Applications of Rough Sets, Soft Computing and Intelligent Systems and include, but are not limited to:

- * Logical and Mathematical Foundations of Rough Sets
- * Fuzzy Sets and Soft Computing
- * Fuzzy-Rough Hybridization,
- * Generalization of Rough Sets: Covering-based Rough Sets, Probabilistic Rough Sets
- * Near Sets, Nearness Approximation Spaces
- * Rough Mereology
- * Approximate, Non-monotonic and Case-based Reasoning
- * Granular Computing
- * Computing with Words
- * Formal Concept Analysis
- * Big Data Analytics
- * Bioinformatics
- * Decision Support Systems
- * Intelligent Agent Technology
- * Distributed Problem Solving
- * Cloud Computing
- * Intelligent Information Systems
- * Digital Libraries
- * Intelligent Language Processing
- * Knowledge Representation and Integration
- * Knowledge Discovery and Data Mining
- * Stream Mining, Web Mining, Text Mining, Graph Mining, Process Mining, Spatial Data Mining
- * Machine Learning
- * Pattern Recognition and Image Processing
- * Web Intelligence

Accepted special sessions:

- * Exploiting Images for Information Extraction and Knowledge Generation (organizers: Consuelo Gonzalo, Mario Lillo)
- * Fuzzy Decision Making and Consensus (organizers: Enrique Herrera-Viedma, Francisco Javier Cabrerizo, Ignacio Javier Pérez)
- * Fuzzy Logic and Rough Sets: Tools for Imperfect Information (organizers: Lluís Godo, Thomas Vetterlein)
- * Mining Big Volatile Data (organizers: Myra Spiliopoulou, Athena Vakali)
- * New Trends in Formal Concept Analysis and Related Methods (organizers: Manuel Ojeda-Aciego, Sergei Kuznetsov)
- * Soft Computing for Learning from Data (organizers: Isaac Triguero, Salvador García)
- * Soft Computing in Information Access Systems on the Web (José Olivás, Francisco Romero, Jesús Serrano)
- * Spatial Data Analysis and Spatial Databases (Robert Bemberek, Dariusz Gotlib, Grzegorz Protaziuk)
- * Three-way Decisions and Probabilistic Rough Sets (organizers: Bing Zhou, Hong Yu, Huaxiong Li)

Confirmed plenary speakers:

- * Bernard De Baets (Ghent University, Belgium)
- * Francisco Herrera (University of Granada, Spain)
- * Jerzy Stefanowski (Poznan University of Technology, Poland) Rough Sets: Theory and Applications (RST&A)

Granada, Spain, July 9, 2014

Submission deadline: June 6, 2014 (Extended)

The Rough Sets: Theory and Applications (RST&A) workshop will be held in Granada on July 9, 2014, as part of the 2014 Joint Rough Set Symposium (JRS 2014).

The RST&A workshop is devoted to the state-of-the-art and future perspectives of rough sets considered from both a theoretical standpoint and real-world applications. It also encourages scientists from other research fields to participate to initiate discussion and collaboration on other methods of data exploration and approximate computation. The topics of interest include but are not restricted to:

- * Dominance-based rough sets
- * Fuzzy-rough hybrid methods
- * Rough neural computing
- * Rough granular computing
- * Rough sets and near sets
- * Bio-informatics
- * Computational Intelligence
- * Data mining
- * Data security
- * Evolutionary computing
- * Expert and decision support
- * Genetic algorithms
- * Information theory
- * Knowledge engineering
- * Knowledge discovery
- * Machine Learning
- * Missing values handling methods
- * Multimedia applications
- * Robotics
- * Web applications
- * Approximate reasoning

The workshop will feature plenary talks by Thomas Stützle and Yiyu Yao, complemented with talks of authors of accepted abstracts. Accepted abstracts will be published in the form of local booklet handed out at the workshop. The 2014 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2014)

Warsaw, Poland, August 11-14, 2014 Submission deadline: March 30, 2014 (Extended) The 2014 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2014) will be a part of the 2014 Web Intelligence Congress (WIC 2014). WIC 2014 will be held at the historical Central Campus of the University of Warsaw, Warsaw, Poland, between 11th and 14th of August 2014.

Web Intelligence focuses on scientific research and applications by jointly using Artificial Intelligence (AI) (e.g., knowledge representation, planning, knowledge discovery and data mining, intelligent agents, and social network intelligence) and advanced Information Technology (IT) (e.g., Semantic Web, Wisdom Web, Web search, Web Mining, recommender systems) for the next generation of Web-empowered products, systems, services, and activities.

The series of Web Intelligence (WI) conferences was started in Japan in 2001. Since then, WI has been held yearly in several countries, including: Canada, China, France, USA, Australia and Italy. WI conference is recognized as the World's leading forum related to Web Intelligence. In 2014, it will be organized in Warsaw as a Special Event commemorating the 25th anniversary of the Web.

Of special interest to the rough set community are the special session on Soft Clustering, and the special session on Granular Computing. Visit the WIC 2014 homepage for the complete list of special sessions.

The 2nd International Conference on Information Technology and Quantitative Management (ITQM 2014)

Moscow, Russia, June 3-5, 2014

Submission deadline: March 1, 2014 (Extended)

ITQM 2014 covers all topics in the broad ranges of information technology and quantitative management including, but not limited to:

- Multicriteria Analysis
- Soft Computing Methods in Quantitative Management and Decision Making
- Semantic Learning and Intelligent Awareness

- Optimization-based Data Mining, Decision Procedures in Data Analysis
 - Supply Chain and Optimal Decisions in Logistics
 - Optimal Decisions on Production of Oil and Gaz
 - Optimal Decisions in Public Procurement
 - Optimal Decisions on Transportation
 - Big Data Analysis
 - Information Technologies in Public Administration
 - Social Networks and QM
 - QM in Finance and Banking
 - QM in Energy Economics and Electric Networks
 - QM in Education and Developing Universities
 - QM in Medicine
 - On Supporting Informed Decision-Making in Real-Time
- Intelligent Decision Making and InnovationsOf special interest to the rough set community is the special session on Formal Concept Analysis and Rough Set Theory for Information Technologies and Quantitative Management.

21st International Symposium on Methodologies for Intelligent Systems (ISMIS 2014)

Roskilde, Denmark, June 25-27, 2014Submission deadline: February 17, 2014 (Extended) The scope of ISMIS is intended to represent a wide range of topics on applying Artificial Intelligence techniques to areas as diverse as decision support, automated deduction, reasoning, knowledge based systems, machine learning, computer vision, robotics, planning, databases, information retrieval, etc. The focus is on research in intelligent systems. The conference addresses issues involving solutions to problems that are complex to be solved through conventional approaches and that require the simulation of intelligent thought processes, heuristics and applications of knowledge. The integration of these multiple approaches in solving complex problems is of particular importance. ISMIS provides a forum and a means for exchanging information for those interested purely in theory, those interested primarily in implementation, and those interested in specific research and industrial applications. ISMIS'14 is intended to attract individuals who are actively engaged both in theoretical and practical aspects of intelligent systems. The goal is to provide a platform for a useful exchange between theoreticians and practitioners, and to foster the cross-fertilization of ideas in the following areas:

- Active Media Human-Computer Interaction
- Autonomic and Evolutionary Computation
- Digital Libraries
- Intelligent Agent Technology
- Intelligent Information Retrieval
- Intelligent Information Systems
- Intelligent Language Processing
- Knowledge Representation and Integration
- Knowledge Discovery and Data Mining
- Knowledge Visualization
- Logic for Artificial Intelligence
- Music Information Retrieval
- Social Networks
- Soft Computing
- Text Mining
- Web Intelligence
- Web Mining
- Web ServicesIn addition, we solicit papers dealing with Applications of Intelligent Systems in complex/novel domains, e.g. human genome, global change, manufacturing, health care, etc.

International Conference on Computational Intelligence (ICCI 2014)

Mumbai, India, March 21-22, 2014Submission deadline: February 20, 2014 IICI 2014 is a platform for researchers in computing and allied areas to come together, present and discuss their ideas and results, and take their work forward. Selected papers will be published in special issues of indexed open access journals having ISSN. The organizers are keen on providing an opportunity to budding researchers in areas related to the theme of this conference. Participants are encouraged to submit working papers based on their original ideas. Oyster ICCI '14 will be a unique attraction of the first day of the conference, where youngsters would be provided hands-on experience in using rough sets in their research. Their learning outcomes will be evaluated on the basis of solutions to a given problem that they will produce within 24 hours. The best among the contestants will be awarded attractive prizes.

12th International Symposium on Formal Concept Analysis (ICFCA 2014)

Cluj-Napoca, Romania, June 10-13, 2014Submission deadline: December 20, 2013 (abstracts) and January 10, 2014 (full papers) Formal Concept Analysis emerged in the 1980's from attempts to restructure lattice theory in order

to promote better communication between lattice theorists and potential users of lattice theory. Since its early years, Formal Concept Analysis has developed into a research field in its own right with a thriving theoretical community and a rapidly expanding range of applications in information and knowledge processing including visualization, data analysis (mining) and knowledge management.

The conference aims to bring together researchers and practitioners working on theoretical or applied aspects of Formal Concept Analysis within major related areas such as Mathematics and Computer and Information Sciences and their diverse applications to fields like Software Engineering, Linguistics, Life and Social Sciences, etc.

21st International Symposium on Methodologies for Intelligent Systems (ISMIS 2014)

Roskilde, Denmark, June 25-27, 2014 Submission deadline: February 17, 2014 (Extended) The scope of ISMIS is intended to represent a wide range of topics on applying Artificial Intelligence techniques to areas as diverse as decision support, automated deduction, reasoning, knowledge based systems, machine learning, computer vision, robotics, planning, databases, information retrieval, etc. The focus is on research in intelligent systems. The conference addresses issues involving solutions to problems that are complex to be solved through conventional approaches and that require the simulation of intelligent thought processes, heuristics and applications of knowledge. The integration of these multiple approaches in solving complex problems is of particular importance. ISMIS provides a forum and a means for exchanging information for those interested purely in theory, those interested primarily in implementation, and those interested in specific research and industrial applications. ISMIS'14 is intended to attract individuals who are actively engaged both in theoretical and practical aspects of intelligent systems. The goal is to provide a platform for a useful exchange between theoreticians and practitioners, and to foster the cross-fertilization of ideas in the following areas:

- Active Media Human-Computer Interaction
- Autonomic and Evolutionary Computation
- Digital Libraries
- Intelligent Agent Technology
- Intelligent Information Retrieval
- Intelligent Information Systems
- Intelligent Language Processing
- Knowledge Representation and Integration
- Knowledge Discovery and Data Mining
- Knowledge Visualization
- Logic for Artificial Intelligence
- Music Information Retrieval
- Social Networks
- Soft Computing
- Text Mining
- Web Intelligence
- Web Mining
- Web Services

In addition, we solicit papers dealing with Applications of Intelligent Systems in complex/novel domains, e.g. human genome, global change, manufacturing, health care, etc.

2014 IEEE World Congress on Computational Intelligence (WCCI 2014)

Beijing, China, July 6-11, 2014 Submission deadline: January 20, 2014 (Extended) The IEEE World Congress on Computational Intelligence (IEEE WCCI) is the largest technical event in the field of computational intelligence. IEEE WCCI 2014 will host three conferences: The 2014 International Joint Conference on Neural Networks (IJCNN 2014), the 2014 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2014), and the 2014 IEEE Congress on Evolutionary Computation (IEEE CEC 2014). IEEE WCCI 2014 will engage in cross-fertilization among the three big areas and provide a stimulating forum for scientists, engineers, educators, and students from all over the world to discuss and present their research findings on computational intelligence. IJCNN 2014: The annual International Joint Conference on Neural Networks (IJCNN) is the flagship conference of the IEEE Computational Intelligence Society and the International Neural Network Society. It covers a wide range of topics in the field of neural networks, from biological neural network modeling to artificial neural computation.

FUZZ-IEEE 2014: The annual IEEE International Conference on Fuzzy Systems (FUZZ-IEEE) is the foremost conference in the field of fuzzy systems. It covers all topics in fuzzy systems, from theory to applications.

IEEE CEC 2014: The annual IEEE Congress on Evolutionary Computation (IEEE CEC) is one of the leading events in

the field of evolutionary computation, and covers all topics in evolutionary computation from theory to applications. Of special interest to the rough set community is the special session on Fuzzy and Rough Hybridization organized by Richard Jensen and Neil Mac Parthal'ain. 15th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU 2014)

Montpellier, France, July 15-19, 2014 Submission deadline: December 31, 2013 (Extended)

The IPMU conference is organized every two years with the focus of bringing together scientists working on methods for the management of uncertainty and aggregation of information in intelligent systems. It provides a medium for the exchange of ideas between theoreticians and practitioners in these and related areas.

Topics and Scope of the Conference:

Theory, Methods and Tools: Uncertainty, Bayesian and Probabilistic Methods, Information Theory, Measures of Information and Uncertainty, Evidence and Possibility Theory, Utility Theory, Fuzzy Sets and Fuzzy Logic, Rough Sets, Multiple Criteria Decision Methods, Aggregation Methods, Knowledge Representation, Approximate Reasoning, Non-classical Logics, Default Reasoning, Belief Revision, Argumentation, Ontologies, Uncertainty in Cognition, Graphical Models, Knowledge Acquisition, Machine Learning, Evolutionary Computation, Neural Networks, Data Analysis.

Application Fields: Intelligent Systems and Information Processing, Decision Support, Database and Information Systems, Information Retrieval and Fusion, Image Processing, Multi-Media, Agents, Pattern Recognition, Medicine and Bioinformatics, Finance, Software Engineering, Industrial Engineering.

Of special interest to the rough set community is the special session on Fuzzy Logic, Formal Concept Analysis and Rough Sets organized by Jesús Medina Moreno and Manuel Ojeda Aciego. 20th Conference of the International Federation of Operational Research Societies (IFORS 2014)

Barcelona, Spain, July 13-18, 2014 Submission deadline: January 31, 2014 The IFORS 2014 Triennial Conference will bring operational researchers from around the globe together. The Conference Organizing and Program Committees together represent many countries from all five continents, bringing the research, applications and perspectives of their areas to this international forum. We are working to prepare an attractive scientific program covering the full spectrum of topics in our field, with a diverse and high quality number of participants sharing their knowledge and experience of operational research.

2013 Joint Rough Set Symposium (JRS 2013)

Halifax, Canada, October 10-14, 2013 Workshop submission deadline (expired): August 31, 2013

Main conference submission deadline (expired): June 8, 2013 The 2013 Joint Rough Set Symposium (JRS 2013) encapsulates the 14th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC 2013) and the 8th International Conference on Rough Sets and Knowledge Technology (RSKT 2013). It will also host the workshops on Rough Set Theory (RST 2013) and Rough Set Applications (RSA 2013). JRS was organized for the first time in 2007 in Toronto, Canada, and was re-established in 2012 in Chengdu, China, as the major flagship IRSS-sponsored event gathering different rough-set-related conferences and workshops every year. This year it will provide a forum for researchers and practitioners interested in rough sets, soft computing, data exploration and knowledge technology. JRS will host the following invited speakers: Dr. Eugene Santos, jr., Dr. Jian Pei, Dr. Vijay Raghavan, and Dr. Boris Mirkin. Also, a lifetime contribution award will be awarded to Dr. Andrzej Skowron. Also note that an Open Data Mining Competition will be organized at JRS'2013. The fourth Rough Set Theory Workshop will be hosted on Oct. 10. The RST workshops are devoted to the state-of-the-art and future prospects of rough sets considered from a theoretical standpoint. The main focus are mathematical foundations of rough set theory and its relationships to other theories of data analysis. This edition of the RST workshop is devoted to formal concept analysis, which bears manifold relationships to rough sets. The 2013 Workshop on Rough Set Applications will also be hosted on Oct. 10. Its objective is to showcase the real-world applications of rough sets and other methods of data exploration and approximate computation. The special emphasis will be put on hybrid solutions combining rough sets with other tools, as well as the importance of utilization of domain knowledge in the data mining and data processing solutions. The 7th Multi-Disciplinary International Workshop on Artificial Intelligence

Krabi, Thailand, December 9-11, 2013 Submission deadline: July 31, 2013 (Extended)

This workshop aims to be a meeting place where excellence in AI research meets the needs for solving dynamic and

complex problems in the real world. The academic researchers, developers, and industrial practitioners will have extensive opportunities to present their original work, technological advances and practical problems. Participants can learn from each other and exchange their experiences in order to fine tune their activities in order to help each other better. The main purposes of the MIWAI series of workshops are as follows:

- to provide a meeting place for AI researchers and practitioners.
- to inform research students about cutting-edge AI research via the presence of outstanding international invited speakers.
- to raise the standards of practice of AI research by providing researchers and students with feedback from an internationally-renowned program committee. Of specific interest to the rough set community are the special sessions on Three-way Decisions and Probabilistic Rough Sets, and on Soft Clustering. Workshop on Designing the Market of Data - for Synthesizing Data in Sciences and Businesses (MODAT 2013)

Dallas, United States, December 7, 2013 Submission deadline: August 3, 2013

This workshop is not about data mining for marketing, but about how to create and design the market where data are reasonably dealt with, i.e., sold, opened free, or shared after negotiation. Our ultimate goal is to have each people on the earth feel free to share one's own data with others without fearing of the loss of business opportunities.

In this workshop we call for presentations about what we can/should do for creating a marketplace where data and analysts' knowledge are shared by selling and buying, with reasonably determining the conditions for sharing. Or, people in the market may communicate to decide to expose the data as open-source, if the trust of the data provider is expected to be elevated highly due to the contribution to people in the public. Thus the Market of Data (MODAT) means a place where the value of data and knowledge can be externalized. Relevant areas are as follows, but not restricted to:

- Data/Text mining and visualization
- Visualization of links among data, representing the possibility to combine them to discuss use scenarios of data
- Visualization of links and distances among data, representing their similarities
- Mining data or text for finding important events and attributes, in order to compute the links and distances
- Extracting causalities, for externalizing links among data
- Knowledge representation
- Construction of dictionaries of variables, for reasonably linking among data
- Representing the hierarchical structure of relevance among concepts and variables, used in the thoughts of analysts and users
- Methods for creative communication and argumentation
- Data-based communication for evaluating the value of an event, i.e., chance discovery, and data which may include such an event
- Visual interface for triggering meaningful thoughts of stakeholders

We also love to involve ones beyond the community of data mining? sociologists, stock dealers, biologists, ..anyone from active communities are in MoDAT. Forming the interdisciplinary community, we will conduct a session of Innovators MarketplaceR where ideas to combine existing technologies and knowledge are reflected to the design of Data Market.

This workshop is organized in conjunction with IEEE ICDM 2013. ICDM has the unique tradition that all accepted workshop papers are published in a formal proceedings by the IEEE Computer Society Press. Special session on Granular Knowledge Discovery in Biomedical and Active-Media Environments

Maebashi, Japan, October 29-31, 2013 Submission deadline: July 15, 2013 (Extended) Paper submission: https://wi-lab.com/cyberchair/2013/amtbi13/scripts/ws_submit.php?subarea=SB

Granulation of information – inherent in human thinking and reasoning – becomes a new trend in data mining and processing. When a problem involves incomplete and vague information, it can be difficult to differentiate distinct elements, and so one can find it easier to group elements into granules. In the same way, when a problem involves massive amounts of data of heterogeneous nature and origin, it is quite often better to build the underlying models and systems on more specific granules representing a hierarchy and variety of aspects and components that the compound real-world phenomena consist of. Benefits of granular approach to data mining and knowledge discovery can be seen especially clearly in computational tasks related to rich data and rich domain knowledge, where it is possible to discover a scheme of granules that represent data and interact with each other while modeling a given problem. The areas with particularly advantageous though, on the other hand, challenging mixture of data and knowledge include brain and health informatics where domain knowledge is based on at least partial understanding of biomedical processes and experience of medical specialists, as well as active media environments where huge amounts of data are generated according to specific soft/hard/middleware architectures. In all those scenarios, information granulation can help in faster and more robust data computations, as well as in discovering patterns and trends expressed by means of domain knowledge. This session aims at continuing our research in granular knowledge discovery (see e.g. our special issue in Intelligent Decision Technologies) with the emphasis on

foundations and applications related to the main topics of the AMT 2013 and BHI 2013 conferences. We are open for all contributions at the edge of information granulation, knowledge discovery, brain-health informatics and active media environments. Session organizers: Andrzej Skowron, Dominik Slezak (contact person: slezak@mimuw.edu.pl), Shusaku Tsumoto, Yiyu Yao. The session will be organized at the 2013 International Conferences on Active Media Technology (AMT'13) and on Brain and Health Informatics (BHI'13).

AMT'13 aims at providing a leading international forum to bring together researchers and practitioners from diverse fields, to increase the cross-fertilization of ideas and explore the fundamental roles, interactions as well as practical impacts of intelligent information technology and computer science on the next generation of computing environments, systems and media. BHI'13 aims to provide a leading international, interdisciplinary forum to bring together researchers and practitioners that explore the interplay between studies of human brain and health/well-being related issues and advents of computer science and information technologies. The AMT-BHI 2013 joint keynote speech will be held by Professor Yuichiro Anzai. The AMT 2013 keynote speakers are Yuzuru Tanaka, Carl K. Chang and Andrzej Skowron. The BHI 2013 keynote speakers are Shinsuke Shimojo, Marcel A. Just and Jiming Liu.

2013 Concurrency, Specification and Programming Workshop (CS&P2013) Warsaw, Poland, September 25-27, 2013 Submission deadline: June 30, 2013 The Concurrency, Specification, and Programming (CS&P) workshop is one of a series of seminars organised every even year by Humboldt University of Berlin and every odd year by the University of Warsaw. According to a tradition dating back to the 1970s (since 1993 as CS&P), the workshop has an informal character. Therefore, submissions of not only full papers (not exceeding 12 pages) but also extended abstracts are welcome. The workshop usually spans three days devoted to presentations and discussion. The materials (proceedings) of the workshop are published by organising institution, while authors of selected contributions are later invited to submit an extended paper to the *Fundamenta Informaticae* journal.

Topics of the workshop include:

- Mathematical models of concurrency
- Specification languages
- Theory of programming
- Parallel algorithms
- Model checking and testing
- Multi-agent systems
- Rough sets
- Object-oriented approaches
- Knowledge management
- Knowledge discovery and data mining
- Soft computing
- Applications This list is not intended to be exclusive.

4th International Conference on Pattern Recognition and Machine Intelligence (PReMI2013)

Kolkata, India, December 10-14, 2013 Submission deadline: May 31, 2013 (extended) The primary goal of the conference is to present state-of-the-art scientific results, encourage academic and industrial interaction, and promote collaborative research activities in Pattern Recognition, Machine Intelligence and related fields, involving scientists, engineers, professionals, researchers and students from India and abroad. The conference is held every two years to make it an ideal platform for people to share their views and experiences in the said areas. This is the fifth conference of this series. Papers are invited in all areas of Pattern Recognition and Machine Intelligence including, but not limited to, the following:

- Pattern Recognition
- Image Processing
- Computer Vision
- Data Mining & Knowledge Discovery
- Bioinformatics & Computational Biology
- Machine Learning
- Soft Computing
- Hardware Implementation
- Evolutionary Computing
- Fuzzy Computing
- Neural Computing

- Rough Computing
- Case Based Reasoning
- Content Based Image Retrieval
- Steganography & Digital Watermarking
- Medical Imaging
- Remote Sensing
- Biometrics
- Web Intelligence
- Text Mining
- Social Media Mining
- Cognitive Science
- Brain Modeling
- Uncertainty Analysis
- Common Sense Reasoning
- Video Surveillance
- Natural Computing

8th International Symposium Advances in Artificial Intelligence and Applications (AAIA'13) Kraków, Poland, September 8-11, 2013 Submission deadline: May 12, 2013 The AAIA'13 will bring researchers, developers, practitioners, and users to present their latest research, results, and ideas in all areas of artificial intelligence. Papers related to theories, methodologies, and applications in science and technology in this theme are especially solicited. Topics covering industrial issues/applications and academic research are included, but not limited to:

- Knowledge management
- Decision Support System
- Approximate Reasoning
- Fuzzy modeling and control
- Data Mining
- Web Mining
- Machine learning
- Combining multiple knowledge sources in an integrated intelligent system
- Neural Networks
- Evolutionary Computation
- Nature Inspired Methods
- Natural Language processing
- Image processing and understanding (interpretation)
- Applications in Bioinformatics
- Hybrid Intelligent Systems
- Granular Computing
- Architectures of intelligent systems
- Robotics
- Real-world applications of Intelligent Systems

Of specific interest to researchers in the rough set community is the following workshop: International Workshop on Rough Sets and Knowledge Discovery (RSKD'13)

The workshop on Rough Sets and Knowledge Discovery (RSKD'13) is intended as a place for researchers from universities, laboratories and industry to present state-of-the-art in KDD & DM, with special preference given to applications of rough sets, soft computing and a broad spectrum of AI methodologies. The workshop will also make it possible for researchers and developers to highlight new research directions, new applications, and a growing number of relationships between rough sets and such areas as computational intelligence, intelligent information systems, synthesis and analysis of complex objects and non-conventional models of computation.

The topics of interest to RSKD include, but are not limited to, the following:

- AI methods in data mining and knowledge discovery
- Rough set theory and its applications in data analysis
- Intelligent data acquisition, selection, and processing
- AI / soft computing methods in machine learning
- AI tools for pattern recognition, signal, and image processing
- Decision support systems and multi-criteria decision analysis
- Process mining and intelligent planning
- Web intelligence and Web mining
- Hybrid and integrated intelligent systems
- Utilization of domain knowledge in KDD

2013 International Conferences on Active Media Technology (AMT'13) and on Brain and Health Informatics (BHI'13)

Maebashi, Japan, October 29-31, 2013 Submission deadline: April 15, 2013 In the great digital era, we are witnessing many rapid scientific and technological developments in human-centred, seamless computing environments, interfaces, devices, and systems with applications ranging from business and communication to entertainment and learning. These

developments are collectively best characterized as Active Media Technology (AMT), a new area of intelligent information technology and computer science that emphasizes the proactive, seamless roles of interfaces and systems as well as new media in all aspects of digital life. An AMT based system offers services to enable the rapid design, implementation and support of customized solutions.

AMT'13 aims at providing a leading international forum to bring together researchers and practitioners from diverse fields, to increase the cross-fertilization of ideas and explore the fundamental roles, interactions as well as practical impacts of intelligent information technology and computer science on the next generation of computing environments, systems and media. AMT will feature high-quality, original research papers in all theoretical, technical, practical, and interdisciplinary studies that make up the field of

active media technology. Brain and Health Informatics (BHI) aims to develop and disseminate understandings of novel intelligent computing formalisms, techniques, and technologies in the special application contexts of brain and health/well-being related studies and services. It is devoted to interdisciplinary studies on BHI, covering computational, logical, cognitive, neuro-psychological, biological, physical, ecological, and social perspectives of BHI.

BHI'13 aims to provide a leading international, interdisciplinary forum to bring together researchers and practitioners that explore the interplay between studies of human brain and health/well-being related issues and advents of computer science and information technologies. For instance, emerging advanced information technologies, such as Internet/Web of things (IOT/WOT), the wisdom Web of things (W2T), cloud computing, may be applied to brain studies. Informatics-enabled brain studies, e.g., based on functional magnetic resonance imaging (fMRI), electroencephalogram (EEG), positron emission tomography (PET), and eye-tracking, can significantly broaden the spectrum of theories and models of brain sciences, which will in turn offer new insights into the development of intelligent computing systems and informatics. BHI will feature high-quality, original research papers in all theoretical, technological, clinical, and interdisciplinary studies that make up the field of brain/health informatics. Eighth Conference of the European Society for Fuzzy Logic and Technology (EUSFLAT'2013)

Milano, Italy, September 11-13, 2013 Submission deadline (Extended): March 26, 2013 The 8th conference of the European Society for Fuzzy Logic and Technology, EUSFLAT-2013, will take place in Milano, the industrial and business capital of Italy.

The EUSFLAT 2013 Conference will be held at the premises of the University of Milano-Bicocca, Milano, Italy from September 11th to September 13th, 2013.

The aim of the conference is to bring together theoreticians and practitioners working on fuzzy logic, fuzzy systems, soft computing and related areas. It will provide a platform for the exchange of ideas among scientists, engineers and students. Of specific interest to researchers in the rough set community is the following special session: Special session on Representing and Managing Vagueness: Different Scenarios, Different Tools The notion of vagueness has been extensively analysed in the last decades by philosophers, logicians and computer scientists. Here we are interested in the vagueness originated by different characteristics and flaws in information: incompleteness, imprecision, graduality, granularity, contradiction between agents, etc. For each of these aspects one (or more) specific tool has been introduced in literature: fuzzy sets, rough sets, possibility theory, formal concept analysis, interval analysis, etc. Further, when more than one form of vagueness are present at the same time, it seems natural to fuse such tools, as in the fuzzy rough set case. (The special session is devoted to collect all contributions that deal with scenarios leading to a form of vagueness and tools to represent and manage it. In particular, all critical discussions, comparisons among two or more forms of vagueness and/or comparisons and fusion of two or more tools are welcome.

The not exhaustive list of topics includes:((

- fuzzy sets and logic(
- rough sets (classical, probabilistic, game-theoretic, etc…)(
- fuzzy rough sets(
- interval-valued fuzzy sets(
- formal concept analysis(
- possibility theory(
- supervaluations(
- paraconsistent logics(
- near sets(
- interval analysis(
- grey sets(
- soft sets(
- vague sets(
- epistemic logic(

Organizers

Davide Ciucci, Università degli Studi di Milano-Bicocca, ciucci@disco.unimib.it
Chris Cornelis, University of Granada, chriscornelis@ugr.es

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2013 IEEE International Conference on Fuzzy Systems

(FUZZ-IEEE'2013) Hyderabad, India, July 7-10, 2013 Submission deadline: February 28, 2013 The 2013 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2013) will be held in the historical city of Hyderabad, India. The conference will provide a platform for researchers and practitioners to deliberate / exchange ideas on a wide range topics in fuzzy systems and related areas, including but not limited to:

- Fuzzy control and robotics, fuzzy hardware/architectures
 - Fuzzy systems design, modeling, identification
 - Fuzzy pattern recognition - clustering, classification, feature analysis
 - Fuzzy data/text/web mining, information/text/image retrieval.
 - Fuzzy knowledge discovery, learning, reasoning, agents, knowledge representation
 - Type-2 fuzzy sets, computing with words, granular computing, rough sets, fuzzy human computer interaction
 - Fuzzy set theory, fuzzy measures, fuzzy integrals
 - Fuzzy systems in brain science and brain computer interface.
 - Fuzzy image, speech and signal processing, vision and multimedia
 - Fuzzy decision support systems, decision analysis, multi- criteria decision making
 - Applications of fuzzy theories in all areas including bioinformatics, medicine, biomedical signal analysis, software engineering, and industries
 - Evolvable fuzzy systems, adaptive, hierarchical, evolutionary, neural and nature- inspired systems
 - Hybrid computational intelligence systems. Of specific interest to researchers in the rough set community are the following special sessions: SS-11: Fuzzy and Rough Hybridization
- Rough set theory (RST) has become a topic of great interest to researchers in recent years and has been applied to a variety of different domains (e.g. classification, systems monitoring, information retrieval, clustering, etc.). The reason for this popularity stems from a number of appealing aspects of the theory. Indeed, the focus of RST on grouping information entities into granules in terms of some form of relatedness, offers a certain universal intuitive appeal. However, as RST handles only one type of imperfection found in crisp/nominal data, hybridizations with other soft computing techniques that are tolerant of imperfect data and knowledge such as fuzzy sets offer an improved approach to dealing with additional aspects of data imperfection. Such developments offer a high degree of extensibility and provide robust solutions and advanced tools for data analysis.

Objectives and Topics:

- Draw together current original research in the fast-growing area of fuzzy and rough set hybridization.
- Promote the practical and theoretical extensions of fuzzy and rough hybridizations.
- Foster the integration of fuzzy and rough hybridizations with other computational intelligence techniques.
- Novel practical or theoretical contributions describing advances and results are welcomed in all areas where fuzzy and rough set theory can be integrated. Organizers: Neil Mac Parthalain <ncm@aber.ac.uk>

Richard Jensen <kj@aber.ac.uk>

Qiang Shen <s@aber.ac.uk> SS-31: Knowledge and Uncertainty Management in Granular Computing and Rough Sets Zadeh stated at FUZZ IEEE 96 that "information granulation involves partitioning a class of objects (points) into granules, with a granule being a clump of objects drawn together by indistinguishability, similarity or functionality." By generalizing "indistinguishability, similarity or functionality" to "a set of binary relations", Zadeh's concept of granulation becomes the so called neighbourhood system. Rough partitions, alpha-cuts, binary relations, coverings, topological spaces, Frechet spaces, soft sets and all their respective fuzzified models are special cases of neighbourhood systems.

Zadeh's original intent was to utilize granules as a base for uncertainty in granular mathematics and computing. Pawlak founded rough sets using a partition as an obvious type of granulation. Many efforts have been devoted to generalize Pawlak's methodology of knowledge processing to various models mentioned above. More generally, following Pawlak's and Zadeh's ideas, a granule can be interpreted as a piece of knowledge, a sub-unit of computing, or a region of uncertainty.

Granular models are very efficient while dealing with uncertain, incomplete and dynamically changing concepts, tasks and specifications. One of the increasingly important areas of applications, which is a natural domain for granular / rough approaches due to the so called "granulate and compute" strategy, is the big data analytics, where precise computational methods are not scalable and flexible enough.

The topics of this session include but are not limited to the following areas:

- Granular / rough models for big data, risk management, pattern recognition etc.
- Computing with words as a knowledge model (e.g., information table + decision logic) for granular and rough computing.
- Pawlak's / Zadeh's models, with their extension toward neighborhood systems.
- Uncertainty / incompleteness in rough sets, including parameterized approaches.
- Uncertainty / incompleteness in fuzzy sets, including fuzzy sets of types $k=1,2,\dots$
- Granular models and new paradigms: sub-Turing machines, function spaces etc. Organizers:

T. Y. Lin <tylin@cs.sjsu.edu>
 Dominik Slezak <slezak@mimuw.edu.pl>
 Mihir Chakraborty <mihirc4@gmail.com>

2013 IFSA World Congress - NAFIPS Annual Meeting

Edmonton, Canada, June 24-28, 2013 As a truly unique and international conference in the areas of fuzzy sets and soft computing, 2013 IFSA-NAFIPS Joint Congress will bring together scientists, engineers, students, and practitioners working in fuzzy logic and related areas to present their recent research accomplishments. In particular, below we highlight three focus sessions which are of specific interest to the rough set community. In each case, the submission deadline is February 28, 2013 (later than the main conference submission deadline), and submissions should be sent directly to the chairs of the corresponding sessions. Computing with Approximations: Theory and Practice The methods for computing with approximations create the core of many methodologies developed for handling massive data, imprecise information and incomplete knowledge. They include both the models of approximate representation of complex concepts and the methods for learning how to combine such representations within larger schemes reflecting real-world phenomena. In this session, we would like to focus on the set-based approximate representations, such as fuzzy sets, rough sets, near sets etc., as well as their relationships to the methods of approximate reasoning and computing, such as interval computing, granular computing, and others. We would also like to encourage papers discussing how to take an advantage of the available domain knowledge while designing approximate representation and computation models. Our session is inspired by the panel discussion on the same topic, held at the FedCSIS 2012 conference in Wroclaw, Poland (<http://2012.fedcsis.org/node/215>), where - besides an overview of applications of the methods for computing with approximations in the areas such as bio-medicine, economy, multimedia, business intelligence, knowledge discovery, semantic search, risk management, algorithmic trading and analytics of machine-generated data sets - we referred to the foundations of the considered approaches in order to provide a background for evaluating their usefulness in real world. At IFSA 2013, we would like to keep the same balance between the theory and practice. We also intend to invite the authors who contribute to our focus session to include their extended papers into an edited book on computing with approximations. Organizers: Andrzej Skowron (skowron@at’ mimuw.edu.pl)

Janusz Kacprzyk (kacprzyk@ibspan.waw.pl)

Dominik Slezak (slezak@at’ mimuw.edu.pl) Knowledge and Uncertainty in Big Data What is Big Data? It will not have a precise answer for a long time to come. Currently, people believe it refers to technologies that utilize the principles such as Hadoop and Very Large Databases. But from the foundational point of view, Big Data seems to be a natural domain for knowledge and uncertainty management.

What are the important theoretical characteristics of Big Data? In one hand it is "TOO BIG", yet in the other hand it is "small enough". It is referring to computationally intractable data, yet there are some tractable finitary descriptions. We believe many current novel knowledge engineering and uncertainty paradigms, such as computing with words / decision logic (rough sets), granular / grid / cloud computing, Petry nets / distributed computing (alphabetical order) are appropriate concepts / intuitions to capture such "small enough" descriptions of "TOO BIG" data. In this session, we will advocate possibilities for applying novel paradigms in knowledge and uncertainty managements to Big Data. We are inviting the communities of AI, databases / data mining, fuzzy / rough / soft sets, granular / grid / cloud computing, web informatics / mining etc., to present their views on Big Data in this session. We welcome both theoretical and practical papers, with a focus on both short term and long term vision.

The topics of this session include but are not limited to the following areas: • Models of Big Data, e.g., with regard to finitary descriptions of infinite sets.

• Granular computing for Big Data, including extensions of Turing machines, function spaces etc.

• Rough / fuzzy / soft set representations for Big Data and infinite data.

• Granulation and approximate computations over Big Data. Organizers: T. Y. Lin (tylin@at’ atcs.sjsu.edu)

Dominik Slezak (slezak@at’ mimuw.edu.pl) Advances in Granular Computing and Advances in Rough Sets Granular computing is an emerging interdisciplinary study of thinking, problem solving and information processing at multiple levels of granularity. Rough sets offer an elegant theory and effective method of granular computing for data analysis. The joint workshop on Advances in Granular Computing (AGC 2013) and Advances in Rough Sets (ARS 2013), following the success of Advances in Granular Computing in 2012 and 2011, aims at bringing researchers and practitioners from many wide spectrum of disciplines and research areas to exchange latest ideas and to envision the future of granular computing and rough sets. As part of the 2013 IFSA World Congress and NAFIPS Annual Meeting, participants of the joint workshop have an excellent opportunity to interact with other researchers regarding granular computing, rough sets, fuzzy sets, and related computational paradigms.

Workshop homepage: <http://rskt.cs.uregina.ca/AGC13/> Organizers: JingTao Yao (jtyao@at' cs.uregina.ca)

Yiyu Yao (yyao@at' cs.uregina.ca)

International Workshop on Rough Sets Applications (RSA'2012) WrocBaw, Poland, September 9-12, 2012 Important Dates

Paper submission: May 14, 2012

Author notification: June 17, 2012

Final submission and registration: July 8, 2012

Conference date: September 9-12, 2012 2012 Joint Rough Set Symposium The 2012 Joint Rough Set Symposium (JRS 2012) is a joint conference of the RSCTC 2012 and RSKT 2012. RSCTC is a main biannual conference of the International Rough Set Society. It is an outgrowth of a series of annual International Workshops devoted to the subject of rough sets, started in 1992. The aim of RSCTC is to show case the state-of-the-art in rough set theory, current computing methods and their applications. It intends to bring together researchers and practitioners from universities, laboratories and industry, to facilitate dialogue and cooperation. RSKT is the 7th in a series of annual conferences on rough sets and knowledge technology. Its aim is to encourage academic and industrial interaction, and promote collaborative research and developmental activities in rough sets and knowledge technology worldwide. JRS will provide a large forum for researchers and practitioners interested in rough set theory, computational intelligence, and knowledge technology. Important dates:- Special session proposal: January 15, 2012- Paper submission: January 30, 2012- Acceptance letter: March 30, 2012 14TH INTERNATIONAL CONFERENCE ON INFORMATION PROCESSING AND MANAGEMENT OF UNCERTAINTY IN KNOWLEDGE-BASED SYSTEMS Catania, Italy, July 9-13, 2012 Key dates:

October 15, 2011: Submission of special sessions

January 15, 2012: Submission of papers

February 25, 2012: Notification of acceptance

March 31, 2012: Submission of final papers Special IPMU-2012 Session on Basic Issues in Rough Sets

Organizers: Davide Ciucci, Didier Dubois

Rough Sets play a fundamental role in uncertainty management where available knowledge cannot accurately describe reality. Beyond their practical use in different fields, great importance is deserved in literature also to mathematical and philosophical aspects of rough sets. This special session is aimed to bring together researchers that are interested in the basic aspects of rough sets.

Topics of interest include but are not limited to:

Algebraic structures in rough set theory

Rough set logics

Philosophical aspects of rough set theory

Complexity of rough set-related optimization/decision problems

Relationship with other paradigms (formal concept analysis, fuzzy sets, ill-known or bipolar sets, near sets...)

Topological and modal approach to roughness

Special IPMU-2012 Session on Rough Sets and Complex Data Analysis: Theory and Applications

Organizers: Andrzej Skowron, Jan Bazan, Hung Son Nguyen

Rough set theory, proposed by Zdzisław Pawlak (1926-2006) in 1982, is a model of approximate reasoning under uncertainty. The main idea is based on representation of complex concepts by their lower and upper approximations. In applications, rough set methodology focuses on approximate representation of knowledge derivable from complex data. It leads to significant results in many areas including, for example, data mining, machine learning, finance, industry, multimedia, medicine, and most recently bioinformatics. The proposed session is a forum to share the most recent results of fundamental research as well as practical efforts in rough sets.

Special IPMU-2012 Session on Approximate Aspects of Data Mining and Database Analytics Organizers: Dominik

Slezak, Alfredo Cuzzocrea

Given rapidly growing amounts of data requiring analysis, there is a significant interest in developing new scalable methodologies of data mining and database analytics. Scalability is often achieved by decreasing complexity and/or parallelization of algorithms. Another aspect is to replace original methods by their approximate versions, e.g., basing on faster operations providing approximate outcomes. Approximate outcomes can be obtained, e.g., as the results of simplified queries or the results of original queries executed approximately. In some cases, accurate operations are impossible anyway because of data uncertainty and dynamics. As a summary, approximate aspects of data mining and database analytics should be considered at the three following levels: data, algorithms, and strategies of algorithms; usage.

This special session will be dedicated to theoretical and practical aspects of using approximate models and methods in

data mining and database analytics. We would like to emphasize the importance of such areas as approximate SQL/OLAP extensions, SQL-/OLAP-based data mining, complex event processing and data stream analytics, as well as foundations and applications of non-deterministic database models. The 2011 IEEE International Conference on Granular Computing Important Dates:

June 15, 2011 Workshop and special session proposal submission

July 1, 2011 Electronic submission of full papers

August 15, 2011 Notification of paper acceptance

September 1, 2011 Camera-ready of accepted papers

November 8-10, 2011 Conference Special Session on Rough sets and intelligent systems Topics of the special session include: Logical and algebraic foundations

Hybridizations: fuzzy-rough, neuro-rough, rough GA, probabilistic rough sets, …

Rough set data reduction

Rough set classification and clustering

Rough set approaches to information retrieval

Rough mereology

Real-world applications Special volume(s) in Series: Intelligent Systems Reference Library dedicated to the memory of

Professor Zdzislaw Pawlak Editors of special volume(s) in Series: Intelligent Systems Reference Library (ISRL) invite contributions to special volume(s) dedicated to the memory of the computer science pioneer – Professor Zdzislaw Pawlak (1926-2006).

Special Session on Rough sets and intelligent systems Call for Papers Topics of the special session include: • Logical and algebraic foundations

• Hybridizations: fuzzy-rough, neuro-rough, rough GA, probabilistic rough sets, …

• Rough set data reduction

• Rough set classification and clustering

• Rough set approaches to information retrieval

• Rough mereology

• Real-world applications Third International Workshop on

ROUGH SET THEORY (RST11) 14-16 September 2011, Milano, Italy

<http://www.rstworkshop.tk> The RST workshops are devoted to state-of-the-art scientific results about rough sets from a theoretical standpoint. Great importance is attached to informal discussion among participants. A round table concerning foundational and open problems in rough sets theory is included in each workshop.

The 2011 IEEE International Conference on Granular Computing Call for Papers Sapporo, Japan, August 11-13, 2011

Sponsored By IEEE Computer Society

Indexed by EI (GrC 2005, 2006, 2007, 2008, 2009 are indexed by EI).

Contact: tylin@cs.sjsu.edu

Conference web page:

<http://db1.csse.muroran-it.ac.jp/~grc2011/index.htm> The 6th International Conference on

Rough Sets and Knowledge Technology (RSKT'11) Call for Papers Oct 9-12, 2011, Banff, Canada Conference web page:

<http://rskt.cs.uregina.ca/4th> International Conference on Pattern Recognition and Machine

Intelligence (PReMI'11) Call for Papers June 27 - July 1, 2011

Organized by

Higher School of Economics (HSE), Moscow, Russia

in collaboration with

Machine Intelligence Unit, Indian Statistical Institute (ISI), Kolkata, India

URL: <http://premi11.hse.ru/> 13th International Conference on Rough Sets, Fuzzy Sets and Granular

Computing (RSFDGrC-2011) Call for Papers 25 - 27 June, 2011

Organized by

Higher School of Economics (HSE), Moscow, Russia

in collaboration with

International Rough Set Society (IRSS)

URL: <http://rsfdgrc.hse.ru/> The IEEE International workshop on New Directions in Rough Sets and Near

Sets (RSNS2010) Under the framework of the 10th IEEE International Conference on Intelligent Systems Design and

Applications, ISDA'10 November 29 – December 1, 2010, Cairo, Egypt Conference web page:

<http://cig.iet.unipi.it/isda2010/>

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Technically sponsored by:

Sponsor :

Machine Intelligence Research Labs Second International Workshop on ROUGH SETS THEORY (RST10) The RST workshops are devoted to present the state-of-the-art scientific results about rough sets from the theoretical standpoint. Great importance is dedicated to discussion and included in the workshops there is a round table about foundational and open problems in rough sets theory.

<http://rst2010.zjou.edu.cn/> Colloquium on Computational Intelligence (Rough Set based approach) March 23rd-24th, 2010

Organized by: Department of Computer & Information Sciences, CMSD & ACRHEM, University of Hyderabad

<http://cmsd.uohyd.ernet.in/files/ccir/cci2010.html> IRSTC 2010 Discovery Challenge The Tuned IT

<http://tunedit.org/>

and Organizers of the Seventh International Conference on Rough Sets and Current Trends in Computing RSCTC 2010 are proud to announce the RSCTC 2010 Discovery Challenge Prizes worth over 3,000 USD in total will be awarded to best solutions. Call for Doctoral Workshop Contributions - WI-IAT 2010 IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology The Third WI-IAT Doctoral Workshop York University, Toronto Canada, August 31, 2010 Call for Contributions <http://roughsets.home.pl/www/WI-IAT2010/DoctoralWS.html> RSCTC 2010 - Call for Special Session Proposals Call for Special Session Proposals

The Seventh International Conference on Rough Sets and Current Trends in Computing
Warsaw, Poland, June 28 - 30, 2010

<http://www.rsctc2010.org/>

Complete CfP in PDF format RSKT 2010 - Announcement and Call for Papers The Fifth International Conference on Rough Set and Knowledge Technology
October 15-17 2010

Beijing Jiaotong University, Beijing, China <http://rskt2010.bjtu.edu.cn/>

Past special issues

Fundamenta Informaticae
Special Issue on
Rough Sets and Fuzzy Sets

Submission deadlines:

December 31, 2014 (Abstracts)

February 28, 2015 (Full papers)

Soon we will celebrate the 50th anniversary of Professor Lotfi Zadeh's first publication on fuzzy sets. Rough sets emerged more than 30 years ago as another major mathematical approach for managing uncertainty that arises from inexact, noisy, or incomplete information.

Over the years it was recognized that the two approaches can work nicely as complementary. Many methods based on combination of both approaches were developed, often with a significantly better performance than those obtained by using them separately. The obtained results were published in dedicated books, journal special issues, as well as many regular journal articles and conference papers.

The aim of this special issue is to (i) characterize the state of the art of methods based on combination of fuzzy sets and rough sets, (ii) present new methods based on combination of rough sets and fuzzy sets, (iii) show the future perspectives for such methods, in particular in the face of new challenges emerging nowadays when we are dealing with big data, web of things or cyber-physical systems as well as new computing models. Also papers dedicated to new aspects of comparison of rough sets and fuzzy sets are welcome. Topics of interest include but are not limited to:

- Comparison of rough sets and fuzzy sets
- Methods based on combination of rough sets and fuzzy sets in pattern recognition
- Methods based on combination of rough sets and fuzzy sets in data mining
- Methods based on combination of rough sets and fuzzy sets in granular computing
- Methods based on combination of rough sets and fuzzy sets with other approaches in soft computing
- Challenges for rough sets and fuzzy sets in emerging applications
- Deadline for abstract proposal: December 31, 2014
- Deadline for submissions: February 28, 2015
- First review decision: April 30, 2015
- Revised review decision: July 30, 2015
- Final manuscript due: August 31, 2015

Guest editors Chris Cornelis Hung Son Nguyen Sankar K. Pal Wei-Zhi Wu Andrzej Skowron
Submission Instructions Papers will be evaluated based on their originality, presentation, relevance and novelty, as well as their suitability to the special issue, and for their overall quality. All submitted papers will be strictly peer-reviewed by at least two independent reviewers. Papers must be submitted in PDF format (for use during the review process) to our paper submission page on EasyChair:

<https://easychair.org/conferences/?conf=rsfs2015>

After acceptance, however, the source files prepared in Fundamenta Informaticae template will be required. Please follow the author guidelines in the webpage:

<http://fi.mimuw.edu.pl/index.php/FI/about/submissions>

Natural Computing - an International Journal
Special Issue on
Information Granulation in Natural Computing

Submission deadline: August 31, 2013 (Extended) Natural Computing refers to computational processes observed in nature, and human-designed computing inspired by nature. When complex natural phenomena are analyzed in terms of computational processes, our understanding of the essence of computation is enhanced. Information granulation is crucial for understanding complex, interactive and adaptive computations in nature. It enables to pave the path from sensory measurements to concepts expressed in a natural-like language at a perception level. Granular Computing provides a framework for modeling and reasoning about such concepts based on their approximations derived in the information granulation processes.

This special issue aims at the role of information granulation in designing intelligent systems inspired by nature, as well as in discovering characteristics of natural processes from large amounts of experimental data and interactively acquired domain knowledge bases. The topics include, but are not limited to:

- Comparison of Natural and Soft Computing Methodologies
- Granular and Natural Computing in Context Modeling
- Granular and Natural Computing in Decision Support
- Granular and Natural Computing in Information Fusion
- Granular and Natural Computing in Process Mining
- Granular Methods for Perception-Based Computing
- Hierarchical Granulation in Natural Computing Models
- Information Granulation in Complex Adaptive Systems
- Information Granulation in Natural Computing Foundations
- Nature-Inspired Handling of Incompleteness and Vagueness
- Nature-Inspired Interactive Computing Models
- Scalability of Granular and Natural Computing Important dates • Declaration of paper submission: March 31, 2013
- Deadline for full paper submission: August 31, 2013 (Extended)
- Deadline for the first review round: October 31, 2013
- Deadline for revised versions: November 30, 2013
- Deadline for the second review round: December 31, 2013
- Deadline for final version preparation: January 31, 2014 Guest editors Dominik Zi zak Andrzej Skowron Submission Instructions
- Papers will be examined using double-blind peer review process
- Full papers should be of the length of approximately 15-20 pages
- Full papers should be emailed to D. Slezak with cc to A. Skowron

Information Sciences Journal
Special Issue on
Processing and Mining Complex Stream Data

Data mining and machine learning have shown tremendous methodological development and have been applied to various real-world problems. Nevertheless, many of current approaches assume processing static and simple (usually tabular) forms of data. On the other hand, modern applications and the rapid grows of information technologies give access to massive, complex and dynamic data.

Massive data are generated every day in many fields. These are often machine-generated data produced, e.g., by sensor or monitoring systems. Enormous amount of data overwhelm current computer systems with respect to storing, processing and analysing them under acceptable space and time constraints. Moreover these data are no longer of a standard form but they could be represented in more complex structures offering richer descriptions of real-world objects. Both massive and complex data characteristics require new scalable algorithmic solutions allowing for data summarizing, sampling and approximating. New architectures for efficient managing such data and querying them are also necessary as well.

This need is particularly relevant in the emerging data stream mining domain, where large volumes of data records are generated continuously. The amounts of data arriving at a high rate, often with dynamically changing characteristics, require real-time or near-real-time analysis and introduce constraints over the available amount of memory. Another important aspect of mining data streams refers to changes in the data distributions and target concepts over time. Detecting these changes and adapting classifiers to concept drifts becomes one of the challenges for new scalable algorithms. The aim of this special issue is to discuss the current state of research and latest results concerning mining large, complex and evolving stream data. We solicit original and unpublished contributions in all topics covering these data mining tasks. Papers should present new results in the following (non-exhaustive) list of topics:

- Scalability in processing massive data volumes
- Handling machine-generated data streams
- Approximate processing and approximate queries
- Near-real-time analytics of massive and stream data
- Discovering complex patterns in data, including multi-labeled classification and structured, complex decisions
- Classification, clustering and frequent patterns from data streams

- Detecting and adapting to changes and concept drifts in evolving data streams
- Ensemble learning
- Efficient algorithms for mining data streams in ubiquitous environments
- Handling uncertainty in mining stream data
- Cleaning algorithms for data stream mining
- Adaptive, complex learning from rare and imbalanced data
- Architectures of data repositories for learning in complex and dynamic environments
- Data stream mining and processing over cloud infrastructures
- Applications requiring mining massive, complex and stream data

- Submissions of manuscripts due: February 28, 2013
- Author notification: May 26, 2013
- Submission of revised manuscripts July 8, 2013
- Final decisions September 28, 2013
- Submission of final versions due: October 21, 2013
- Intended publication date First half of 2014

Guest editors Jerzy Stefanowski Poznań University of Technology, Poland Alfredo Cuzzocrea ICAR-CNR and University of Calabria, Italy Dominik Ziak University of Warsaw & Infobright Inc., Poland Submission format The submitted papers must be written in English and describe original research which is not published nor currently under review by other journals or conferences. Author guidelines for preparation of manuscript can be found at <http://www.elsevier.com/locate/ins/>

Submission guidelines All manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select as "Special Issue: Min. Compl. and Stream D." when they reach the "Article Type" step in the submission process. The EES Web site for INS (Information Sciences Journal) is available at: <http://ees.elsevier.com/ins/> For more information, please contact:

Jerzy Stefanowski at Jerzy.Stefanowski@cs.put.poznan.pl Alfredo Cuzzocrea at cuzzocrea@si.deis.unical.it Dominik Ziak at slezak@mimuw.edu.pl

Intelligent Decision Technologies - An International Journal

Special Issue on

Granular Knowledge Discovery (GKD)

Methodology of Granular Computing (GrC) becomes more and more popular in modeling of intelligent systems. Granulation of information is inherent in human thinking and reasoning processes. GrC provides an information processing framework where interactive computation and operations are performed on information granules, and is based on the realization that precision is sometimes expensive and not much meaningful in modeling and controlling complex systems. When a problem involves incomplete, uncertain, and vague information, it can be difficult or infeasible to differentiate distinct elements, and so one can find it convenient to consider granules for such problem's handling. This special issue aims at presenting the state of the art in foundations and applications of GrC. As an important trend in applications, one can consider the Knowledge Discovery in Databases (KDD) and the Decision Support Systems (DSS). In both these areas, data and knowledge granulation lead to more robust models and processes, giving a rise to more meaningful and effective interaction with the domain experts and more efficient cooperation between different modules and layers of complex systems. From this perspective, it becomes equally important to conduct research on how to discover granules from data and how to utilize them to represent higher level concepts in decision support mechanisms.

The topics of this special issue include, but are not limited to the following:

- Foundations of GrC in KDD and DSS
- Soft Computing Approaches (including Rough Sets, Fuzzy Sets and Interval Analysis) in GKD
- Granular Methods for Perception Based Computing
- Granular Methods for Natural Computing
- Granular Methods for Information Fusion
- Granular Methods for Process Mining
- Granular Methods for Scalable Computing
- GKD in Hierarchical Learning
- GKD in Interactive Computing
- GKD in Context Modeling
- Interactive Modeling of GKD Systems

- Hung Son Nguyen
- Sankar K. Pal

• Witold Pedrycz
 • Andrzej Skowron
 • Dominik Slezak (contact person: slezak@mimuw.edu.pl)
 • Junzo Watada

• February 28, 2013: Full paper submission
 • May 15, 2013: Feedback from reviewers
 • June 30, 2013: Camera-ready submission
 • October 31, 2013: Intended date of publication

• Each paper will be examined using a double-blind peer review process
 • Papers must be of about 7K-8K words; Each issue contains 5-6 papers
 • Full papers need to be sent to Dominik Slezak (slezak@mimuw.edu.pl)

Special Issue on Rough Sets and Logic Rough sets play a fundamental role in uncertainty management whenever the available knowledge does not afford a sufficiently precise description of reality. Since their introduction by Z. Pawlak in 1981, rough sets have proved useful in such domains as reasoning under uncertainty, classification, multi-agent systems, decision theory, and granular computing. This special issue is a follow-up to the 2011 edition of the Rough Set Theory Workshop (RST2011), held in Milano from September 14 through September 16. It is aimed at attracting contributions focussing on the interaction between logic, broadly construed, and rough set theory. The editors would like to solicit submissions on any topic that relates rough sets models (classical, relation-based, fuzzy-rough sets, covering, multi-granulation, etc.) with logics (modal, temporal, algebraic, probabilistic, etc.). RST2011 devoted special attention to relationships between rough sets, on the one hand, and many-valued logic and belief functions, on the other hand. Papers that focus on the connections between rough sets and many-valued logic or belief functions are therefore especially welcome.

Schedule:

August 31, 2012: Submission deadline.

November 30, 2012: Notice of conditional acceptance.

January 15, 2013: Submission of 1st revision.

The special issue is expected to appear in print during the first half of 2013. Submissions are due by August 31, 2012.

Papers are to be submitted through Elsevier's EES submission process as described at <http://ees.elsevier.com/ija/>. Authors are required to indicate that they would like their submission to be considered for the special issue on "Rough Sets and Logic". All papers will be reviewed according to the standards and procedures that IJAR follows for ordinary submissions. Further reviewing may be needed after the first round, depending on reviewers' comments and editorial assessments.

Guest Editors:

Stefano Aguzzoli, Università degli Studi di Milano, Italia

Davide Ciucci, Università degli Studi di Milano-Bicocca, Italia

Vincenzo Marra, Università degli Studi di Milano, Italia

Call for Papers: Special Issue on Decision-Theoretic Rough Sets

http://www2.cs.uregina.ca/~jtyao/IJAR_DTRS.pdf

in International Journal of Approximation Reasoning

Submission Deadline: July 15, 2012

Guest Editors: JingTao Yao, University of Regina, Canada

Huaxiong Li, Nanjing University, China

Georg Peters, Munich University of Applied Sciences, Germany

Background and Special Issue Purpose

Proposed in early 90's, the decision-theoretic rough set model (DTRS) aims to loosen restrictions of conventional rough approximations. It is one of most important probabilistic rough set models. DTRS has gained research attention in recent years. Based on the well established and semantically sound Bayesian decision procedure, DTRS has been successfully applied to many research domains, such as data analysis and data mining, feature selection, information retrieval, and web-based support systems. This special issue of the International Journal of Approximation Reasoning will provide a forum for scholars studying the decision-theoretic rough set model to contribute to the conversation. The editors invite authors to submit theoretical and empirical papers on the topic listed below.

Topics

The scope of this special session include the following, but not limited, topics,

- Applications of decision-theoretic rough sets
- Bayesian rough set models
- Decision-makings based on decision-theoretic rough sets
- Extensions of decision-theoretic rough sets
- Game-theoretic rough sets
- Probabilistic rough set models

Deadlines, Submission and Review Process:

Publication of the special issue is planned for early 2013. Original submissions are due by July 15, 2012, and must be made using the Elsevier's EES submission process described at <http://ees.elsevier.com/ija/>. Early submission is welcome. We will start review process once we have your submission. Authors should indicate that they would like

submission to be considered for the special issue on "Decision-Theoretic Rough Sets"; Authors of conditional accepted manuscripts are expected to have further reviews and revisions based on reviews and comments. Tentative timetable: July 15, 2012. Submission deadline Oct 1, 2012. Notice of conditional acceptance Nov 15, 2012. Submission of 1st revision March 1, 2013. Final version submission Call for Papers: Special Issue on Artificial Intelligence with Rough Sets http://www.intl-jest.com:88/index.php?p=item&item_id=66 in Journal of Electronic Science and Technology (International) <http://www.intl-jest.com:88/Submission> Deadline: 10 December 2010 Guest editors

Prof. William Zhu: williamfengzhu@gmail.com

Prof. Yiyu Yao: yyao@cs.uregina.ca

Prof. Dominik Slezak: dominik.slezak@infobright.com THEORETICAL COMPUTER SCIENCE

section THEORY of NATURAL COMPUTING

Thematic Special Issue Theoretical Computer Science: Theory of Natural Computing (Elsevier) is seeking original and unpublished manuscripts for a special journal issue on "Rough-Fuzzy Computing"; scheduled for publication in 2011. 'Natural Computing', is devoted to the study of computing occurring in nature and computing inspired by nature. The purpose of this issue is to demonstrate the potentiality and effectiveness of the rough-fuzzy computing (RFC) tools, both individually and in synergy with other existing approaches, for making progress in different facets of natural computing. The aim of the issue is twofold:

(i) to present new results on the RFC foundations and new RFC methods, particularly in combination with some other existing approaches such as evolutionary computing or metaheuristics inspired by nature, neural networks, molecular computing, or quantum computing for the development of more efficient computational models; thereby making it possible to solve complex problems;

(ii) to present foundations of computing models based on rough-fuzzy computing in combination with other existing approaches; thereby helping to better understand the computing going on in nature. The contributors should note that this issue is focused mainly on the theoretical foundations of the field rather than on particular applications. Submission procedure Manuscripts should conform to the standard guidelines of Theoretical Computer Science (Elsevier).

Guidelines for formatting papers can be found in the Guide for Authors on the web page

http://www.elsevier.com/wps/find/journaldescription.cws_home/505625/authorinstructions

Prospective authors should submit pdf file with their complete manuscript by July 31, 2010 to the following address:

skowron@mimuw.edu.pl

All submitted papers will be reviewed by at least two independent reviewers. Guest-Editors:

Sankar K. Pal

Indian Statistical Institute 203 Barrackpore Trunk Road Kolkata 700 108, INDIA Hung Son Nguyen

Institute of Mathematics

Warsaw University

Banacha 2, 02-097 Warsaw, Poland Andrzej Skowron (Managing-Guest Editor)

Institute of Mathematics

Warsaw University

Banacha 2, 02-097 Warsaw, Poland Past calls

2015 Call for Applications of IRSS Fellowship and Senior Membership

The International Rough Set Society (IRSS) is a non-profit organization dedicated to scholarship in rough sets introduced during the early 1980s by Zdzislaw Pawlak. Principal purpose of IRSS is to promote the study and exchange of ideas concerned with rough set theory, foundations, methods, as well as their extensions and applications. Principal policy of IRSS is to attain this purpose through publications, workshops, international conferences, research projects, and other such activities consistent with the objectives of the Society. Primary function of IRSS is to act as a federation of its Members to accomplish its goals. It is also the policy of IRSS to insist upon the highest standards of scholarship and service from its Members.

IRSS Fellows and Senior Members of the IRSS will be elected every year from 2015. Election of IRSS Fellows and Senior Members is a lengthy and rigorous process designed to ensure that the elections are thorough and fair.

1. Requirements for an IRSS member to apply for IRSS fellowship

- 10 years of IRSS membership, or published the 1st rough set research paper more than 10 years ago;
- Great achievement on rough set research and contribution for the development of IRSS;
- Nominated by 3 IRSS fellows, senior members, or IRSS Fellow Committee members;
- A simple majority (i.e., a vote in favor by more than 50% of all IRSS Fellow Committee members) is required for a candidate for an IRSS fellow to be elected. The 1st IRSS fellow committee members include all IRSS present/past IRSS Presidents, IRSS AB Chairs and IRSS SC Chairs, who agreed to join the committee.

IRSS Fellow Committee

Chair: Guoyin Wang (China)

Vice Chair: Yiyu Yao (Canada)

Members: Jerzy W. Grzymala-Busse (USA), Tsau Young Lin (USA), Duoqian Miao (China), Andrzej Skowron (Poland), Dominik Slezak (Poland), Roman Slowinski (Poland), Shusaku Tsumoto (Japan), Guoyin Wang (China), JingTao Yao (Canada), Yiyu Yao (Canada), Wojciech Ziarko (Canada)

Notes: Since IRSS starts to elect fellows and senior members from 2015, there is no IRSS fellow or senior member before. In 2015, only IRSS fellow committee members could serve as nominators for IRSS fellowship applicants.

2. Requirements for an IRSS member to apply for IRSS senior membership

- a) 5 years of IRSS membership, or published the 1st rough set research paper more than 5 years ago
- b) Good achievement on rough set research and contribution for the development of IRSS;
- c) Nominated by 3 IRSS members;
- d) A simple majority (i.e., a vote in favor by more than 50% of all IRSS EB, AB and SC members) is required for a candidate for an IRSS senior member to be elected. For the persons who want to apply for IRSS Fellow, please fill in the "IRSS Fellow Application Form", and for the persons who want to apply for IRSS Senior Member, please fill in the "IRSS Senior Member Application Form". The procedure of submitting an IRSS Fellow/Senior Member application form is as follows.
 1. The applicant fills in his/her application form.
 2. The applicant sends his/her application form to 3 nominators who agree to nominate him/her.
 3. After getting the support of 3 nominators, the applicant sends his/her complete application form and e-versions of the representative papers/books to Professor Guoyin Wang, the IRSS President, via email at wanggy@cqpt.edu.cn, and cc it to the 3 nominators.Deadline for the submission of application form: March 31, 2015.