APPLIED COMPUTING 2010

The 25th Annual ACM Symposium on Applied Computing
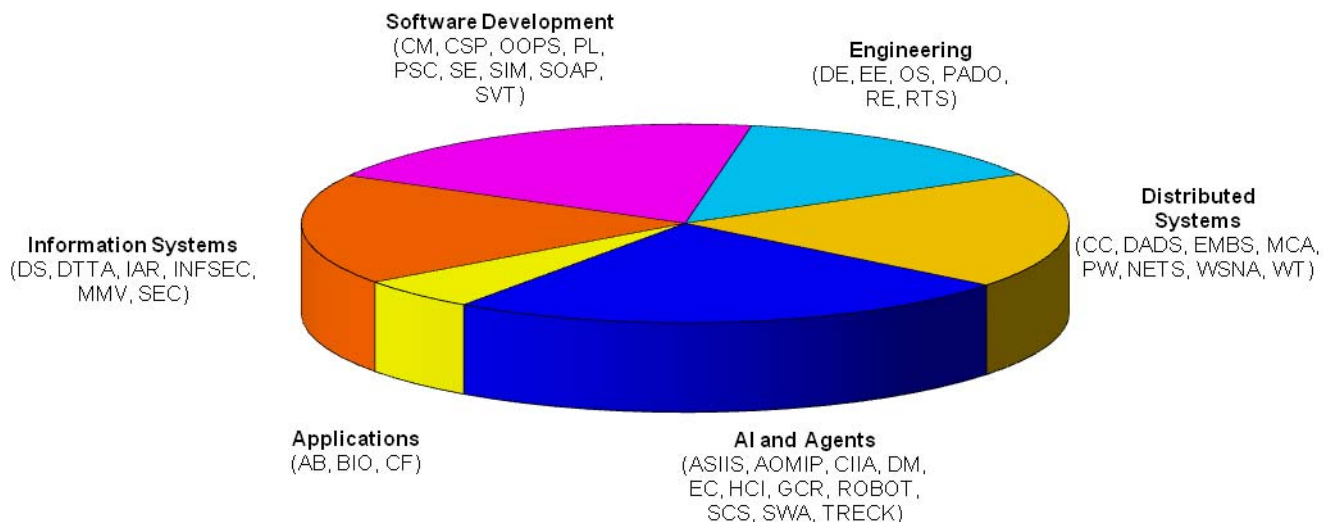
PROCEEDINGS OF THE 2010 ACM
SYMPOSIUM ON APPLIED COMPUTING

Sierre, Switzerland
March 22-26, 2010

Organizing Committee

Sung Y. Shin　　　　　　　　**Dongwan Shin**
Sascha Ossowski　　　　　　　**Boi Faltings**
Michael Schumacher　　　　　　**Jiman Hong**
Mathew J. Palakal　　　　　　**Christelle Monnet**
Chih-Cheng Hung　　　　　　**Hisham M. Haddad**

Software Development
(CM, CSP, OOPS, PL, PSC, SE, SIM, SOAP, SVT)

Engineering
(DE, EE, OS, PADO, RE, RTS)

Distributed Systems
(CC, DADS, EMBS, MCA, PW, NETS, WSNA, WT)

Information Systems
(DS, DTTA, IAR, INFSEC, MMV, SEC)

Applications
(AB, BIO, CF)

AI and Agents
(ASIIS, AOMIP, CIIA, DM, EC, HCI, GCR, ROBOT, SCS, SWA, TRECK)

Hosted by
University of Applied Sciences Western Switzerland (HES-SO)
and
Ecole Polytechnique Fédérale de Lausanne (EPFL)

SAC 2010

Introduction

SAC 2010 is a premier international conference on applied computing and technology. Attendees have the opportunity to hear from expert practitioners and researchers about the latest trends in research and development in their fields. SAC 2010 features two keynote speakers on Tuesday and Thursday, from 9:00 to 10:40. The technical program of the symposium consists of 43 tracks on different research topics, which run from Tuesday March 23 through Friday March 26, 2010. Regular oral presentation sessions start at 9:00 and end at 18:00 in six parallel sessions. In addition, two poster tracks also run on Wednesday March 24, from 9:40 to 12:40 and from 14:40 to 17:40.

Organizing Committee

Sung Y. Shin, *Symposium Co-Chair*
  South Dakota State University, USA
Sascha Ossowski, *Symposium Co-Chair*
  University Rey Juan Carlos, Spain
Michael Schumacher, *Symposium Co-Chair*

  University of Applied Sciences Western
  Switzerland, Switzerland

Mathew J. Palakal, *Program Co-Chairs*
  Indiana University Purdue University, USA
Chih-Cheng Hung, *Program Co-Chairs*
  Southern Polytechnic State University, USA
Jiman Hong, *Poster Program Chair*

  Soongsil University, Korea
Dongwan Shin, *Publication Chair*
  (Proceedings Editor)
  New Mexico Institute of Mining and Technology,
  USA
Boi Faltings, *Tutorials Chair*
  Ecole Polytechnique Fédérale de Lausanne,
  Switzerland
Christelle Monnet, *Local Chair*
  University of Applied Sciences Western
  Switzerland, Switzerland
Hisham M. Haddad, Steering Committee Member,
  Treasurer, Webmaster
  Kennesaw State University, USA

Barrett R. Bryant, Steering Committee Member
  University of Alabama at Birmingham, USA
Roger L. Wainwright, Steering Committee Member
  University of Tulsa, USA

Track Chairs

Volume I: Distributed Systems & Engineering

Document Engineering (DE)
Rafael Lins, Universidade Federal de Pernambuco, Brazil

Enterprise Engineering (EE)
Artur Caetano, IST, Technical University of Lisbon, Portugal
Rogério Carvalho, IFF, Brazil
Maria-Eugenia Iacob, University of Twente, Netherlands
Martin Op't Land, Capgemini and Delft University of Technology, Netherlands

Operating Systems (OS)
Jiman Hong, Soongsil University, Korea
Tei-Wei Kuo, National Taiwan University, Taiwan

Power-Aware Design and Optimization (PADO)
Jian-Jia Chen, Swiss Federal Institute of Technology (ETH) Zurich, Switzerland
X. Sharon Hu, University of Notre Dame, United States

Requirement Engineering (RE)
Maria Lencastre, Universidade de Pernambuco, Brazil

Real-Time Systems (RTS)
Paulo Martins, Chaminade University, United States
Rodrigo Santos, Universidad Nacional del Sur - CONICET, Argentina
Giuseppe Lipari, Scuola Superiore Sant'Anna, Italy

Cloud Computing (CC)
Madhu Kumar S D, National Institute of Technology Calicut, India
Umesh Bellur, IIT Bombay, India
Rajiv Ramnath, Ohio State University, United States

Dependable and Adaptive Distributed Systems (DADS)
Karl M. Goeschka, Vienna University of Technology, Austria
Lorenz Froihofer, Vienna University of Technology, Austria
Svein Hallsteinsen, Sintef, Norway
Rui Oliveira, University of Minho, Portugal

Alexander Romanovsky, University of Newcastle, United Kingdom

Embedded Systems (EMBS)
Alessio Bechini, University of Pisa, Italy
Cosimo Antonio Prete, University of Pisa, Italy

Mobile Computing and Applications (MCA)
Hong Va Leong, Hong Kong Polytechnic University, Hong Kong, China
Alvin Chan, Hong Kong Polytechnic University, Hong Kong, China

Privacy on the Web (PW)
Francois Jacquenet, University of Saint-Etienne, France
Olivier Boissier, Ecole Nationale Supérieure des Mines de Saint-Etienne, France
Stan Matwin, University of Ottawa, Canada

Networking (NETS)
Mario Freire, University of Beira Interior, Portugal
Edmundo Monteiro, University of Coimbra, Portugal
Manuela Pereira, University of Beira Interior, Portugal
Teresa Vazão, IST/INESC ID Lisboa, Portugal

Wireless Sensor Network Systems and Applications (WSNA)
Nigamanth Sridhar, Cleveland State University, United States
Jason Hallstrom, Clemson University, United States

Web Technologies (WT)
Davide Rossi, University of Bologna, Italy
Fabio Vitali, University of Bologna, Italy

Volume II: Artificial Intelligence and Agents & Applications

Advances in Spatial and Image-Based Information Systems (ASIIS)
Richard Chbeir, University of Bourgogne, France
Claramunt Christophe, Naval Academy Research Institute, France
Ki-Joune Li, Pusan National University, Korea
Kokou Yetongnon, University of Bourgogne, France

Agent-Oriented Methodologies, Infrastructures, and Processes (AOMIP)
Ambra Molesini, Alma Mater Studiorum- Università di Bologna, Italy
Massimo Cossentino, ICAR, Consiglio Nazionale delle Ricerche, Palermo, Italy
Andrea Omicini, Alma Mater Studiorum - Università di Bologna a Cesena, Italy
Seidita Valeria, Università degli Studi di Palermo, Italy

Computational Intelligence and Image Analysis (CIIA)
Agostinho Rosa, IST - Technical University of Lisbon, Portugal
Ateet Bhalla, Technocrats Institute of Technology, India

Data Mining (DM)
Hasan Jamil, Wayne State University, United States
Chandan Reddy, Wayne State University, United States
Osmar R. Zaiane, University of Alberta, Canada
Applications of Evolutionary Computing (**EC**)
Federico Divina, Pablo de Olavide University, Spain
Raúl Giráldez Rojo, Pablo de Olavide University, Spain

Human Computer Interaction (HCI)
Shih-Hsi Liu, California State University, Fresno, United States
Auernheimer Brent, California State University, United States
Luís Carriço, University of Lisbon, Portugal
Carlos Duarte, University of Lisbon, Portugal
Rui Lopes, University of Lisbon, Portugal

Geometric Constraints and Reasoning (GCR)
Dominique Michelucci, CNRS, France
Robert Joan-Arinyo, Universitat Politècnica de Catalunya, Catalonia
Xiao-Shan Gao, Chinese Academy of Sciences, China

Intelligent Robotic Systems (ROBOT)
Denis Wolf, University of Sao Paulo, Brazil
Eduardo Marques, University of Sao Paulo, Brazil
Fernando Osorio, University of Sao Paulo, Brazil

Self-Organizing Complex Systems (SCS)
Ronaldo Menezes, Florida Institute of Technology, United States
Mamei Marco, University of Modena and Reggio Emilia, Italy
Mirko Viroli, Alma Mater Studiorum - Università di Bologna, Italy

The Semantic Web and Its Applications (SWA)
Hyoil Han, LeMoyne-Owen College, United States

Trust, Reputation, Evidence and other Collaboration Know-How (TRECK)
Jean-Marc Seigneur, University of Geneva, Switzerland
Yan Lindsay Sun, University of Rhode Island, United States

Applied Biometrics (AB)
Jean Hennebert, University of Applied Sciences Western Switzerland, Switzerland
Andreas Humm, University of Fribourg, Switzerland

Bioinformatics (BIO)
Dan Tulpan, National Research Council of Canada, Canada
Kanagasabai Rajaraman, Institute for Infocomm Research, Singapore
Paola Lecca, The Microsoft Research - University of Trento CoSBi, Italy

Computer Forensics (CF)
Lorie Liebrock, New Mexico Institute of Mining and Technology, United States
Robert L. Hutchinson, Sandia National Laboratories, United States
Brajendra Panda, University of Arkansas, USA

Volume III: Information Systems & Software Development

Data Streams (DS)
João Gama, University Porto, Portugal
Andre Carvalho, University of Sao Paulo, Brazil
Pedro Rodrigues, University Porto, Portugal

Data Theory, Technology, and Applications (DTTA)
Junping Sun, Nova Southeastern University, United States
Ramzi A. Haraty, Lebanese American University, Lebanon
Papadopoulos Apostolos, Aristotle University, Greece

Information Access and Retrieval (IAR)
Gloria Bordogna, CNR, Italy
Gabriella Pasi, Univ. Milano Bicocca, Italy

Information Security Research and Applications (INFSEC)
Guido Schryen, Information Systems Research, University of Freiburg, Germany
Wm. Arthur Conklin, University of Houston, United States
Eliot Rich, University at Albany, United States
Peter Otto, Union Graduate College, United States

Multimedia and Visualization (MMV)
Maria G. Pimentel, SCC/ICMC/USP, Brazil
Ethan V. Munson, University of Wisconsin-Milwaukee, United State

Computer Security (SEC)
Giampaolo Bella, Dip. Matematica e Informatica - Università di Catania, Italy
Luca Compagna, SAP Research, France

Alessandro Sorniotti, Institut Eurécom, France

Coordination Models, Languages and Applications (CM)
Matteo Casadei, Alma Mater Studiorum, Università di Bologna, Italy
Schumacher Michael, University of Applied Sciences Western Switzerland, Switzerland
Wood Alan, University of York, United Kingdom

Constraint Solving and Programming (CSP)
Eric Monfroy, UTFSM, Valparaiso, Chile and LINA, University of Nantes, France, Chile
Stefano Bistarelli, Universita 'G. d'Annunzio' Chieti-Pescara, IIT-CNR, Pisa, Italy
Barry O'Sullivan, University College Cork, Ireland

Object Oriented Programming Languages and Systems (OOPS)
Davide Ancona, Univ. of Genova, Italy
Alex Buckley, Sun Microsystems, United States
Andy Kellens, Vrije Universiteit Brussel, Belgium

Programming Languages (PL)
Marjan Mernik, University of Maribor, Slovenia
Barrett Bryant, University of Alabama at Birmingham, United States

Programming for Separation of Concerns (PSC)
Emiliano Tramontana, University of Catania, Italy
Corrado Santoro, University of Catania, Italy
Yvonne Coady, University of Victoria, Canada

Software Engineering (SE)
W. Eric Wong, UT-Dallas, United States
Chang Oan Sung, Indiana University Southeast, United States
Sung Y. Shin, South Dakota State University, United States

Advances in Computer Simulation (SIM)
Giuseppe Vizzari, University of Milano-Bicocca, Italy
Fabien Michel, Université Montpellier II, France

Service Oriented Architectures and Programming (SOAP)
Manuel Mazzara, University of Newcastle, United Kingdom
Claudio Guidi, University of Bologna, Italy
Ivan Lanese, Università di Bologna, Italy

Software Verification and Testing (SVT)
Jan Cederquist, Instituto Superior Técnico, Portugal

Support

Local support for SAC 2010 is provided by University of Applied Sciences, Western Switzerland (HES-SO) and Ecole Polytechnique fédérale de Lausanne (EPFL), Switzerland. Additional support was provided by the CUSST lab in Seoul, Korea. The SAC organizing committee acknowledges and thanks the local supporters for their generous contributions to SAC 2010. Their support has been essential to the success of the Symposium, and it is greatly appreciated.

ACM SIGAPP

The ACM Special Interest Group (SIG) on Applied Computing is ACM's primary applications-oriented SIG. Its mission is to further the interests of the computing professionals engaged in the development of new computing applications and applications areas and the transfer of computing technology to new problem domains. SIGAPP offers practitioners and researchers the opportunity to share mutual interests in innovative application fields, technology transfer, experimental computing, strategic research, and the management of computing. SIGAPP also promotes widespread cooperation among business, government, and academic computing activities. Its annual Symposium on Applied Computing (SAC) provides an international forum for presentation of the results of strategic research and experimentation for this inter-disciplinary environment. SIGAPP membership fees are: $15.00 for ACM Non-members, $15.00 for ACM Professional Members, and $8.00 for ACM Student Members. For further information on SIGAPP, please contact Sung Shin at Sung_Shin@sdstate.edu or visit the SIGAPP website at http://www.acm.org/sigapp.

Message from the Symposium Chairs

Sung Y. Shin
South Dakota State University, USA

Sascha Ossowski
University Rey Juan Carlos, Spain

On behalf of the Organizing Committee, we welcome you to the 25th Annual ACM Symposium on Applied Computing (SAC 2010), hosted by University of Applied Sciences Western Switzerland. This international forum has been dedicated to computer scientists, engineers and practitioners for the purpose of presenting their findings and research results in various areas of computer applications. The organizing committee is grateful for your participation in this exiting international event. We hope that this conference proves interesting and beneficial.

The Symposium is sponsored by the ACM Special Interest Group on Applied Computing (SIGAPP), whose mission is to further the interests of computing professionals engaged in the design and development of new computing applications, interdisciplinary applications areas, and applied research. This conference is dedicated to the study of applied research of real-world problems. This event provides an avenue to discuss and exchange new ideas in the wide spectrum of application areas. We all recognize the importance of keeping up with the latest developments in our current areas of expedites.

SAC 2010 offers Technical Tracks and Poster Sessions. The success of the conference can be attributed to the substantial contribution of talented Track Chairs and Co-Chairs. Each track maintains a program committee and a set of highly qualified reviewers. We wish to thank the Track Chairs, Co-Chairs, Committee Members and participating reviewers for their hard work and effort to make the SAC 2010 conference a high quality conference. We also thank our invited keynote speakers, Dr. Willy Zwaenepoel, EPFL, Lausanne, Switzerland, and Dr. Bertrand Meyer, ETH Zurich, Switzerland, for sharing their knowledge with SAC attendees. Most of all, special thanks to the authors and presenters for sharing their experience with the rest of us and to all attendees for joining us in Crans-Montana/Sierre, Switzerland this year.

The local organizing committee has been a central contributor to the success of the SAC 2010 conference. Our gratitude goes to the Conference Vice-Chair Dr. Michael Schumacher of University and Local Chair Dr. Christelle Monnet of University of Applied Sciences Western Switzerland in Sierre. We also extend our thanks to the Publication Chair, Dr. Dongwan Shin, New Mexico Tech, Socorro, New Mexico, for his tremendous effort in putting together the conference proceedings, Posters Chair Dr. Jiman Hong, Soongsil University, Seoul, Korea, for his hard work to make a successful Poster Program, and Tutorials Chair Dr. Boi Faltings, EPFL, Lausanne, Switzerland, for arranging an exciting set of Tutorials. A special thanks goes to our Program Chairs Dr. Mathew J. Palakal, Indiana University Purdue University, Indianapolis, Indiana, and Dr. Chih-Cheng Hung, Southern Polytechnic State University, Marietta, Georgia, for coordinating and bringing together an excellent Technical Program.

Again, we welcome you to SAC 2010 and the beautiful city of Crans-Montana/Sierre, Switzerland. We hope you enjoy the SAC 2010 conference and your stay in Switzerland. Next year, we invite you to participate in SAC 2011 to be held in Tai Chung, Taiwan. The conference will be hosted by the Tunghai University.

Message from the Program Chairs

Mathew J. Palakal
Indiana University Purdue University, Indianapolis, USA

Chih-Cheng Hung
Southern Polytechnic State University, Marietta, USA

Welcome to the 25th International Symposium on Applied Computing (SAC 2010). For the past 24 years, SAC has become a major international venue for computing researchers and applied practitioners to convene and share ideas on recent developments in a variety of applied areas of Information Technology. The success of SAC has been the consolidation of a wide range of applied areas into specialized modules called Tracks. Each of the Tracks are then organized and administered by experts in the respective areas by instituting program committees, carrying out blind reviews according to the ACM guidelines, and finally selecting the highly qualified papers for the Track. Since its inception six years ago, the Poster Sessions at SAC have become a tradition, and this year again

the Poster will be an integral part of the Technical Program at SAC 2010.

The open Call for Track Proposals generated 47 proposals, and after prescreening the proposals, 43 Tracks were finally accepted for SAC 2010. The prescreening and selections were made based on the success of those Tracks in the previous SACs as well as targeting new and emerging areas. The Call for Papers for these Tracks attracted 1,414 abstract submissions and 1,353 final paper submissions from 70 different countries. The final submitted number of papers indicates a 96% submission rate. The submitted papers underwent the blind review process and 364 papers were finally accepted as full papers for inclusion in the Conference Proceedings and presentation during the Symposium. The final acceptance rate for SAC 2010 is 26.9% for the overall track. In addition to the accepted full papers, 88 papers that received high enough review scores were accepted as short papers for the Poster Program.

The Technical Program Organization of SAC 2010 is made possible through the hard work of many people from the scientific community who have volunteered and committed many hours to make it a success. Much credit goes to all the Track Chairs for making SAC 2010 Technical Sessions a huge success. Some of the popular Tracks had an unprecedented submissions and having three blind reviews for each paper was certainly a major challenge. Once again this year, we follow the previous years' tradition of organizing various tracks into six different themes. The Symposium Proceedings and the technical presentations are focused around these themes to form a series of related track sessions.

On behalf of the entire SAC 2010 Organizing Committee, we congratulate all the authors for having their papers accepted in their respective Tracks, and we wish to thank all of those who made this year's technical program a huge success. Specifically we wish to thank the speakers, track chairs, reviewers, program committee members, session chairs, presenters, and all the attendees. We also wish to convey our special thanks to the local organizing committee lead by Christelle Monnet from the University of Applied Sciences, Western Switzerland.

We wish you all a pleasant stay in Sierre, hope you have a great time at SAC 2010, and you will have the opportunity to share and exchange your ideas and foster new collaborations. We would also like to take this opportunity to convey to you the news that the 26th International Symposium on Applied

Computing (SAC 2011) will be held in Taipei, Taiwan. We hope to see you all and your colleagues at SAC 2011.

SAC 2010 Themes

This year SAC tracks are divided into six themes: each theme will be associated to one room, hence related tracks will take place sequentially in the same room in most cases, so as to promote sharing and cross-fertilization of ideas through the whole audience of a theme. Check the program schedule at page 7 for details. The six themes of SAC 2010 are listed below:

(ENG) Engineering: Tracks: DE, EE, OS, PADO, RE, RTS

(DS) Distributed Systems: Tracks: CC, DADS, EMBS, MCA, PW, NETS, WSNA, WT

(AIA) AI and Agents: Tracks: ASIIS, AOMIP, CIIA, DM, EC, HCI, GCR, ROBOT, SCS, SWA, TRECK

(APP) Applications: Tracks: AB, BIO, CF

(IS) Information Systems: Tracks: DS, DTTA, IAR, INFSEC, MMV, SEC

(SWD) Software Development: Tracks: CM, CSP, OOPS, PL, PSC, SE, SIM, SOAP, SVT

Keynote Speakers

Time: Tuesday March 23, 2010 9:00 - 10:40AM
Presentation Title: What programming will be?
Speaker: Dr. Bertrand Meyer
ETH Zurich (Swiss Federal Institute of Technology Zurich)
Zurich, Switzerland

Abstract
Since programming became a profession, every decade has brought a major advance. What will be the contribution of the next ten years? This talk makes an attempt at predicting how we will program ca. 2020, a target date close enough to permit realistic confirmation, or falsification, of the predictions. In particular, it examines today's most visible research developments and discusses which ones have a chance of making it to the practice of ordinary programmers; it also discusses how current and new techniques can help software developers cope with society's increasing software demands, both quantitative and qualitative.

The discussion takes examples from the work of many currently active groups in various academic and industrial organizations, and gives special attention to the developments taking place at the ETH Chair of Software Engineering and Eiffel Software in the area of software verification (both tests and proofs), concurrency, programming language mechanisms and development environments.

Speaker's Bio
Bertrand Meyer is Professor of Software Engineering at ETH Zurich (the Swiss Federal Institute of Technology) and Chief Architect of Eiffel Software, based in Santa Barbara (California). He is the author of numerous articles and over ten books on many topics of software engineering, including the best-seller "Object-Oriented Software Construction" (Prentice Hall). He is an ACM Fellow and has received the ACM Software System Award and the Dahl-Nygaard prize for object technology, and is a member of the French academy of technologies. His most recent book, "Touch of Class: An Introduction to Programming Well using Objects and Contracts" (Springer) applies advanced software engineering techniques to the introductory teaching of programming.

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Time: Thursday March 25, 2010
9:00 - 10:40AM
Presentation Title: P2P, DSM, and Other Products of the Complexity Factory
Speaker: Dr. Willy Zwaenepoel
Professor and Dean of the School of Computer and Communication Sciences
EPFL, Lausanne, Switzerland

Abstract
In order to get your paper accepted at a major conference, the idea you develop in the paper must be complex, preferably even incomprehensible to all but the few experts. In order to have your idea have any impact in a real system, it must be simple and comprehensible to the above-average programmer in industry. The obvious net result of this contradiction is that very few papers at major conferences have any impact in real systems. This talk will explore some examples of this dilemma, some counterexamples of ideas that were successfully transferred to practice, and some ideas on how we can perhaps improve the situation.

Speaker's Bio

Willy Zwaenepoel is Professor and Dean of the School of Computer and Communication Sciences at EPFL in Lausanne, Switzerland. He received his BS/MS from the University of Gent, Belgium, in 1979, and his MS and PhD from Stanford in 1980 and 1984, respectively.

He has worked in a variety of aspects of operating systems and distributed systems, including microkernels, fault tolerance, parallel scientific computing on clusters of workstations, clusters for web services, mobile computing, and database replication. He is most well known for his work on the Treadmarks distributed shared memory system, which was licensed to Intel and became the basis for Intel's OpenMP cluster product. His work on high-performance software for network I/O led to the creation of iMimic Networking, Inc, which he led from 2000 to 2005. His current projects include I/O performance of virtual machines, symbolic execution, and software update mechanisms.

Before joining EPFL in 2002, Willy Zwaenepoel was on the faculty at Rice University, where he was the Karl F. Hasselmann Professor of Computer Science and Electrical and Computer Engineering. He was elected Fellow of the IEEE in 1998, and Fellow of the ACM in 2000. He won best paper awards at SigComm 1984, OSDI 1999, Usenix 2000, Usenix 2006 and Eurosys 2007. He was program chair of OSDI in 1996 and Eurosys in 2006, and general chair of Mobisys in 2004. He is the 2000 recipient of the Rice University Graduate Student Association Teaching and Mentoring Award, and the 2007 recipient of the IEEE Tsutomu Kanai Award for his work in distributed computing. He was elected to the Academia Europaea in 2008.

Other Activities

SIGAPP Annual Business Meeting: Monday March 22, from 18:00 to 19:00 in Room 100. Open to everyone.

SAC Reception: Tuesday March 23, from 18:00 to 20:00 in Lunch area levels 0 and 2. Open for all registered attendees.

Poster Sessions: Wednesday March 24, from 9:40 to 12:40 and from 14:40 to 17:40 in Corridor level 0. Open to everyone.

SAC General Luncheon: Tuesday to Friday (March 23 – 26), from 12:50 to 2:10. Lunch area levels 0 and 2. Open for all registered attendees.

Future SAC Organization Meeting: Wednesday March 24, from 18:15 to 19:15 in Room 405/406. Open for SAC Organizing Committee members.

Track Chairs Business Meeting: Thursday March 25, from 18:15 to 19:15 in Room 400. Open for SAC Organizing Committee members and Track Chairs.

SAC Banquet: Wednesday March 24. Departure at 19:30 from conference venue. Open for Banquet Ticket holders. See your tickets for full details.

SAC Best Papers Award: Wednesday March 24. During the SAC Banquet SAC Program Chairs will award one best paper for each of the six themes of this conference.

Tracks Schedule

Tuesday March 23, 2010

TUE. 9:00 – 10:40   AULA
Keynote Address

What Programming will be?
Dr. Bertrand Meyer
ETH Zurich (Swiss Federal Institute of Technology Zurich) Zurich, Switzerland

See details on Page 7.

10:40 – 11:10   LEVELS 3 & 4
Coffee Break

(EE-1) Enterprise Engineering
Session Chair: Maria-Eugenia Iacob,
University of Twente, the Netherlands

A Method for Business Process Decomposition based on the Separation of Concerns Principle
Artur Caetano, Instituto Superior Técnico,Technical University of Lisbon, Portugal
António Rito Silva, Instituto Superior Técnico,Technical University of Lisbon,Portugal
José Tribolet, Instituto Superior Técnico,Technical University of Lisbon, Portugal

Interaction Refinement in the Design of Business Collaborations
Teduh Dirgahayu, University of Twente, Netherlands
Dick Quartel, Novay, Netherlands
Marten van Sinderen, University of Twente, Netherlands

Exploring Business Value Models from the Inter-Organizational Collaboration Perspective
Tharaka Ilayperuma, Royal Institute of Technology, Sweden
Jelena Zdravkovic, Royal Institute of Technology, Sweden

Business Modeling for Service Engineering: A Case Study in the IT Outsourcing Domain
Gregor Scheithauer, Siemens CT Information & Communication, Germany
Holger Kett, Fraunhofer IAO CC Electronic Business, Germany
Joachim Kaiser, Siemens CT Information & Communication, Germany
Susanne Hackner, Siemens CT Information & Communication, Germany
Hao Hu, Siemens CT Information & Communication, Germany
Guido Wirtz, University of Bamberg - Distributed Systems Group, Germany

An Ontology-Based Semantic Foundation for ARIS EPCs
Paulo Sérgio Santos Jr., Federal University of Espírito Santo, Brazil
João Paulo A. Almeida, Federal University of Espírito Santo, Brazil
Giancarlo Guizzardi, Federal University of Espírito Santo, Brazil

(WT-1) Web Technologies
Session Chair: Davide Rossi, University of Bologna, Italy

Peer-to-Peer Collaboration in the Lively Kernel
Janne Kuuskeri, Tampere University of Technology, Finland
Janne Lautamäki, Tampere University of Technology, Finland
Tommi Mikkonen, Tampere University of Technology, Finland

A Robust Link-Translating Proxy Server Mirroring the Whole Web
Ziqing Mao, Purdue University, United States
Cormac Herley, Microsoft Research, United States

Content Cloaking: Preserving Privacy with Google Docs and other Web Applications
Gabriele D'Angelo, University of Bologna, Italy
Fabio Vitali, University of Bologna, Italy
Stefano Zacchiroli, PPS, Université Paris Diderot, UMR 7126, France

Integration of a Human Face Annotation Technology in an Audio-Visual Search Engine Platform
Alessandro Bozzon, Politecnico di Milano, Italy
Marco Brambilla, Politecnico di Milano, Italy
Piero Fraternali, Politecnico di Milano, Italy
Pasquale Pigazzini, KeeSquare S.r.l., Italy

(SWA-1) The Semantic Web and its Applications
Session Chair: Stefan Brüggemann, OFFIS - Institute for Information Technology, Germany

Semantic Content Distribution with Aggregated Profiles
Ahmad Ali Iqbal, National ICT Australia Ltd. and University of New South Wales (UNSW), Australia
Maximilan Ott, National ICT Australia Ltd., Australia
Aruna Seneviratne, National ICT Australia Ltd. and University of New South Wales (UNSW), Australia

Semantics for Intelligent Delivery of Multimedia Content
Ioan Marius Bilasco, Université Lille 1, France
Samir Amir, Université Lille 1, France
Patrick Blandin, Research Centre Henri Tudor, Luxembourg
Chabane Djeraba, Université Lille 1, France
Juhani Laitakari, VTT Tech Research Centre, Finland
Jean Martinet, Université Lille 1, France
Eduardo Martinez Gracia, University of Murcia, Spain
Daniel Pakkala, VTT Tech Research Centre, Finland
Mika Rautiainen, University of Oulu, Finland
Mika Ylianttila, University of Oulu, Finland
Jiehan Zhou, University of Oulu, Finland

External Sorting for Index Construction of Large Semantic Web Databases
Sven Groppe, University of Lübeck, Germany
Jinghua Groppe, University of Lübeck, Germany

Web-Based Graphical Querying of Databases through an Ontology: The WONDER System
Diego Calvanese, Free University of Bozen-Bolzano, Italy
C. Maria Keet, Free University of Bozen-Bolzano, Italy
Werner Nutt, Free University of Bozen-Bolzano, Italy
Mariano Rodriguez-Muro, Free University of Bozen-Bolzano, Italy
Giorgio Stefanoni, Free University of Bozen-Bolzano, Italy

Recovering Uncertain Mappings through Structural Validation and Aggregation with the MoTo System
Floriana Esposito, University of Bari, Italy
Nicola Fanizzi, University of Bari, Italy
Claudia d'Amato, University of Bari, Italy

(ASIIS) Advances in Spatial and Image-based Information Systems
Session Chair: Richard Chbeir, Bourgogne University, France

Standardized Interoperable Image Retrieval
Mario Döller, University of Passau, Germany
Florian Stegmaier, University of Passau, Germany
Harald Kosch, University of Passau, Germany
Ruben Tous, Universitat Politecnica de Catalunya, Spain
Jaime Delgado, Universitat Politecnica de Catalunya, Spain

RecoMap: An Interactive and Adaptive Map-Based Recommender
Andrea Ballatore, University College Dublin, Ireland
Gavin McArdle, University College Dublin, Ireland
Caitriona Kelly, National University of Ireland Galway, Ireland
Michela Bertolotto, University College Dublin, Ireland

Convex Onion Peeling Genetic Algorithm: An Efficient Solution to Map Labeling of Point-Feature
Wan D. Bae, University of Wisconsin-Stout, United States
Shayma Alkobaisi, United Arab Emirates University, United Arab Emirates
Petr Vojtěchovský, University of Denver, United States
Sada Narayanappa, University of Denver, United States
Kye Y. Bae, Digipen Institute of Technology, United States

CLEARMiner: A New Algorithm for Mining Association Patterns on Heterogeneous Time Series from Climate Data
Luciana A.S. Romani, USP, Brazil
Ana Maria de Ávila, Cepagri - UNICAMP, Brazil
Jurandir Zullo Jr., Cepagri - UNICAMP, Brazil
Richard Chbeir, University of Bourgogne, France
Caetano Traina Jr., USP, Brazil
Agma J.M. Traina, USP, Brazil

Modeling Cardinal Directions in the 3D Space with the Objects Interaction Cube Matrix
Tao Chen, University of Florida, United States
Markus Schneider, University of Florida, United States

(MMV-1) Multimedia and Visualization
Session Chair: Valter Roesler, UFRGS, Brazil

PHOTOLAND: A New Image Layout System using Spatio-Temporal Information in Digital Photos
Dong-Sung Ryu, Dept. of Computer Science and Engineering, Pusan National University, Korea
Woo-Keun Chung, Dept. of Computer Science and Engineering, Pusan National University, Korea
Hwan-Gue Cho, Dept. of Computer Science and Engineering, Pusan National University, Korea

XTemplate 3.0: Adding Semantics to Hypermedia Compositions and Providing Document Structure Reuse
Joel André Ferreira Dos Santos, Universidade Federal Fluminense, Brazil
Débora Christina Muchaluat Saade, Universidade Federal Fluminense, Brazil

An Evaluation of the Sinuosity Effect on Visualization of RDP Simplified Maps – An Empirical Study
Luca Paolino, Università di Salerno, Italy
Monica Sebillo, Università di Salerno, Italy
Giuliana Vitiello, Università di Salerno, Italy
Genoveffa Tortora, Università di Salerno, Italy

A Novel Music Recommender by Discovering Preferable Perceptual-Patterns from Music Pieces
Ja-Hwung Su, National Cheng Kung University, Taiwan
Hsin-Ho Yeh, National Cheng Kung University, Taiwan
Vincent S. Tseng, National Cheng Kung University, Taiwan

Distributed Discrimination of Media Moments and Media Intervals: A Watch-and-Comment Approach
Cesar A.C. Teixeira, Universidade Federal de São Carlos, Brazil
Giliard B. Freitas, Universidade Federal de São Carlos, Brazil
Maria da Graça Pimentel, Universidade de São Paulo, Brazil

(SOAP-1) Service Oriented Architecture and Programming

Session Chair: Manuel Mazzara, Newcastle University, UK

Data-Aware Design and Verification of Service Compositions with Reo and mCRL2
N. Kokash, CWI, Netherlands
C. Krause, CWI, Netherlands
E.P. de Vink, Eindhoven University of Technology, Netherlands

A Well-Founded Approach to Service Modelling with Casl4Soa – Part 1 (Service in Isolation)
Christine Choppy, University of Paris, France
Gianna Reggio, Università di Genova, Italy

Adaptive Fuzzy-Valued Service Selection
Davide Bacciu, University of Pisa, Italy
Maria Grazia Buscemi, IMT Lucca Institute for Advanced Studies, Italy
Lusine Mkrtchyan, IMT Lucca Institute for Advanced Studies, Italy

A Heterogeneous Approach to Service-Oriented Systems Specification
Alexander Knapp, University of Augsburg, Germany
Grzegorz Marczyński, University of Warsaw, Poland
Martin Wirsing, Ludwig-Maximilians-Universität München, Germany
Artur Zawłocki, University of Warsaw, Poland

12:50 – 2:10   LEVELS 0 & 2
Lunch Break

TUE 2:10 – 3:50   ROOM 300

(EE-2) Enterprise Engineering
Session Chair: Martin Op't Land, Capgemini, Netherlands

An APQC-PCF based Framework to Compare Service Offerings in Business Transformation Projects
Biplav Srivastava, IBM Research, India
Pietro Mazzoleni, IBM T.J. Watson, United States

Organizing Master Data Management: Findings from an Expert Survey
Boris Otto, University of St. Gallen, Switzerland
Andreas Reichert, University of St. Gallen, Switzerland

A Requirements Elicitation Framework and Tool for Sourcing Business-IT Aligned e-Services
Soonhwa Lee-Klenz, Siemens Audiologische Technik, Germany
Pedro Sampaio, Manchester Business School, United Kingdom
Trevor Wood-Harper, Manchester Business School, United Kingdom

Towards Quality-Aware Development and Evolution of Enterprise Information Systems
Oliver Hummel, University of Mannheim, Germany
Christof Momm, FZI Research Center for Information Technology, Germany
Susan Hickl, University of Karlsruhe, Germany

Goal and Model Driven Design of an Architecture for a Care Service Platform
L.O. Meertens, University of Twente, Netherlands
M.E. Iacob, University of Twente, Netherlands
L.J.M. Nieuwenhuis, University of Twente, Netherlands

TUE 2:10 – 3:50   ROOM 200

(WT-2) Web Technologies
Session Chair: Stefano Zacchiroli, Université Paris Diderot, France

Trustworthy Interaction Balancing in Mixed Service-Oriented Systems
Florian Skopik, Vienna University of Technology, Austria
Daniel Schall, Vienna University of Technology, Austria
Schahram Dustdar, Vienna University of Technology, Austria

Referrer Graph: A Low-Cost Web Prediction Algorithm
B. de la Ossa, Universidad Politecnica de Valencia, Spain
A. Pont, Universidad Politecnica de Valencia, Spain
J. Sahuquillo, Universidad Politecnica de Valencia, Spain
J.A. Gil, Universidad Politecnica de Valencia, Spain

Separation of Concerns in Service-Oriented Applications based on Pervasive Design Patterns
Cristian Mateos, ISISTAN Research Institute - UNICEN - CONICET, Argentina
Marco Crasso, ISISTAN Research Institute - UNICEN - CONICET, Argentina
Alejandro Zunino, ISISTAN Research Institute - UNICEN - CONICET, Argentina
Marcelo Campo, ISISTAN Research Institute - UNICEN - CONICET, Argentina

Avoiding to Dispense with Accuracy: A Method to make Different DTDs Documents Comparable
Matteo Battistelli, University of Bologna, Italy
Silvia Mirri, University of Bologna, Italy
Ludovico Antonio Muratori, University of Bologna, Italy
Paola Salomoni, University of Bologna, Italy
Simone Spagnoli, University of Bologna, Italy

TUE 2:10 – 3:50   ROOM 100

(SWA-2) The Semantic Web and its Applications
Session Chair: Claudia d'Amato, University of Bari, Italy

Towards Automatic Extraction of Epistemic Items from Scientific Publications
Tudor Groza, National University of Ireland, Ireland
Siegfried Handschuh, National University of Ireland, Ireland
Georgeta Bordea, National University of Ireland, Ireland

Ontologies and Summarizability in OLAP
Tapio Niemi, Helsinki Institute of Physics, Switzerland
Marko Niinimäki, HEPIA, University of Applied Sciences of Western Switzerland, Switzerland

Extracting Ontology Concept Hierarchies from Text using Markov Logic
Lucas Drumond, Federal University of Maranhão, Brazil
Rosario Girardi, Federal University of Maranhão, Brazil

Semantically Enabled Business Process Discovery
M.J. Ibanez, Universidad de Zaragoza, Spain
G. Vulcu, Digital Enterprise Research Institute, National University of Ireland, Ireland
J. Ezpeleta, Universidad de Zaragoza, Spain
S. Bhiri, Digital Enterprise Research Institute, National University of Ireland, Ireland

A Framework for Handling Revisions in Distributed Ontologies
Faezeh Ensan, University of New Brunswick, Canada
Ebrahim Bagheri, National Research Council, Canada

TUE 2:10 – 3:50   ROOM 404

(EC-1) Applications of Evolutionary Computing
Session Chair: Federico Divina, Pablo de Olavide University, Spain

Searching for Knee Regions in Multi-Objective Optimization using
Mobile Reference Points
Slim Bechikh, High Institute of Management of Tunis, Tunisia

Lamjed Ben Said, High Institute of Management of Tunis, Tunisia
Khaled Ghédira, High Institute of Management of Tunis, Tunisia

Evolutionary Model Tree Induction
Rodrigo C. Barros, Pontifical Catholic University of Rio Grande do Sul, Brazil
Márcio P. Basgalupp, University of São Paulo, Brazil
Duncan D. Ruiz, Pontifical Catholic University of Rio Grande do Sul, Brazil
André C.P.L.F. de Carvalho, University of São Paulo, Brazil
Alex A. Freitas, University of Kent, United Kingdom

Evolutionary Metaheuristic for Biclustering based on Linear Correlations among Genes
Juan A. Nepomuceno, University of Sevilla, Spain
Alicia Troncoso, Pablo de Olavide University of Sevilla, Spain
Jesús S. Aguilar-Ruiz, Pablo de Olavide University of Sevilla, Spain

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TUE 2:10 – 3:50   ROOM 403

(MMV-2) Multimedia and Visualization
Session Chair: Maria da Graça Pimentel, Universidade de São Paulo, Brazil

Subjective Video Quality Assessment Applied to Scalable Video Coding and Transmission Instability
Leonardo Crauss Daronco, UFRGS, Brazil
Valter Roesler, UFRGS, Brazil
José Valdeni De Lima, UFRGS, Brazil

Web-Based Image Matting
Yen-Chun Lin, National Taiwan University of Science and Technology, Taiwan
Yi-Fang Hsieh, National Taiwan University of Science and Technology, Taiwan
Hsiang-An Wang, National Taiwan University of Science and Technology, Taiwan

An Approach to Intelligently Crop and Scale Video for Broadcast Applications
Joerg Deigmoeller, Institut fuer Rundfunktechnik, Germany
Takebumi Itagaki, Brunel University, United Kingdom
Gerhard Stoll, Institut fuer Rundfunktechnik, Germany
Norbert Just, Institut fuer Rundfunktechnik, Germany

Proposal of an Improved Motion Estimation Module for SVC
Ronaldo Husemann, UFRGS, Brazil
Ricardo Kintschner, UFRGS, Brazil
Valter Roesler, UFRGS, Brazil
José Valdeni Lima, UFRGS, Brazil
Altamiro Susin, UFRGS, Brazil

Listening the Photos
Sergio Canazza, University of Udine, Italy
Antonina Dattolo, University of Udine, Italy

TUE 2:10 – 3:50   ROOM 105

(SOAP-2) Service Oriented Architecture and Programming
Session Chair: Maria Grazia Buscemi, IMT, Italy

Exploiting Assumption-Based Verification for the Adaptation of Service-Based Applications
Andreas Gehlert, University of Duisburg-Essen, Germany
Antonio Bucchiarone, FBK-IRST, Italy
Raman Kazhamiakin, FBK-IRST, Italy
Andreas Metzger, University of Duisburg-Essen, Germany
Marco Pistore, FBK-IRST, Italy
Klaus Pohl, University of Duisburg-Essen, Germany

A Service-Based Context Management Framework for Cross-Enterprise Collaboration
Fatih Turkmen, University of Trento, Italy
Bruno Crispo, University of Trento, Italy
Pietro Mazzoleni, IBM T.J. Watson, United States

ESB Federation for Large-Scale SOA
Françoise Baude, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Imen Filali, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Fabrice Huet, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Virginie Legrand, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Elton Mathias, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Philippe Merle, INRIA Lille - Nord Europe, France
Cristian Ruz, INRIA Sophia-Antipolis, I3S CNRS - UNS, France
Reto Krummenacher, University of Innsbruck, Austria
Elena Simperl, University of Innsbruck, Austria
Christophe Hammerling, EBM Websourcing, France
Jean-Pierre Lorre, EBM Websourcing, France

Cross-Organizational Process Monitoring based on Service Choreographies
Branimir Wetzstein, University of Stuttgart, Germany
Dimka Karastoyanova, University of Stuttgart, Germany
Oliver Kopp, University of Stuttgart, Germany
Frank Leymann, University of Stuttgart, Germany
Daniel Zwink, University of Stuttgart, Germany

3:50 – 4:20   LEVELS 3 & 4
Coffee Break

TUE 4:20 – 6:00   ROOM 300

(EE-3) Enterprise Engineering
Session Chairs: Artur Caetano, IST, Technical University of Lisbon, Portugal,
Rogério Atém de Carvalho, Instituto Federal Fluminense, Brazil,

Quality and Perceived Usefulness of Process Models
Peter Rittgen, University of Borås, Sweden

New Theoretical Findings in Multiple Personalized Recommendations
Yong-Hyuk Kim, Kwangwoon University, Korea
Yourim Yoon, Seoul National University, Korea

A Method for Application Evaluations in Context of Enterprise Architecture
Jan Stefan Addicks, OFFIS - Institute for Information Technology, Germany
Hans-Jürgen Appelrath, University of Oldenburg, Germany

A Method for Validating the Compliance of Business Processes to Business Rules
Bruno de Moura Araujo, Federal University of Rio de Janeiro, Brazil
Eber Assis Schmitz, Federal University of Rio de Janeiro, Brazil
Alexandre Luis Correa, Federal University of Rio de Janeiro, Brazil
Antonio Alencar, Federal University of Rio de Janeiro, Brazil

Towards a GOD-Theory for Organizational Engineering: Continuously Modeling the Continuous (re)Generation, Operation and Deletion of the Enterprise
David Aveiro, University of Madeira, Portugal
A. Rito Silva, Instituto Superior Técnico, Technical University of Lisbon, Portugal
José Tribolet, Instituto Superior Técnico, Technical University of Lisbon, Portugal

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TUE 4:20 – 6:00   ROOM 200

(WT-3) Web Technologies
Session Chair: Davide Rossi, University of Bologna, Italy

Investigating the Influence of Social Computing Applications on Website Quality
Dion Hoe-Lian Goh, Nanyang Technological University, Singapore
Alton Y.K. Chua, Nanyang Technological University, Singapore

Of Mice and Terms: Clustering Algorithms on Ambiguous Terms in Folksonomies
Nicola Raffaele Di Matteo, University of Bologna, Italy
Silvio Peroni, University of Bologna, Italy
Fabio Tamburini, University of Bologna, Italy
Fabio Vitali, University of Bologna, Italy

A Semantic Web-Based Approach for Personalizing News
Kim Schouten, Erasmus University Rotterdam, Netherlands
Philip Ruijgrok, Erasmus University Rotterdam, Netherlands
Jethro Borsje, Erasmus University Rotterdam, Netherlands
Flavius Frasincar, Erasmus University Rotterdam, Netherlands
Leonard Levering, Erasmus University Rotterdam, Netherlands
Frederik Hogenboom, Erasmus University Rotterdam, Netherlands

Expert Finding in Question-Answering Websites: A Novel Hybrid Approach
Wei-Chen Kao, National Chiao Tung University, Taiwan
Duen-Ren Liu, National Chiao Tung University, Taiwan
Shiu-Wen Wang, National Chiao Tung University, Taiwan

TUE 4:20 – 6:00   ROOM 100

(SWA-3) The Semantic Web and its Applications
Session Chair: Sven Groppe, University of Lübeck, Germany

Evidential Reasoning for the Treatment of Incoherent Terminologies
Ebrahim Bagheri, National Research Council, Canada
Faezeh Ensan, University of New Brunswick, Canada

Dynamic Linking and Personalization on Web
Melike Şah, University of Southampton, United Kingdom
Wendy Hall, University of Southampton, United Kingdom
David C. De Roure, University of Southampton, United Kingdom

Interchangeable Consistency Constraints for Public Health Care Systems
Yvette Teiken, OFFIS - Institute for Information Technology, Germany
Stefan Brüggemann, OFFIS - Institute for Information Technology, Germany
Hans-Jürgen Appelrath, University of Oldenburg, Germany

Towards the Induction of Terminological Decision Trees
Nicola Fanizzi, University of Bari, Italy
Claudia d'Amato, University of Bari, Italy
Floriana Esposito, University of Bari, Italy

An Ontology-Based Software Framework to Provide Educational Data Mining
Tarsis Marinho, Federal University of Alagoas, Brazil
Evandro B. Costa, Federal University of Alagoas, Brazil
Diego Dermeval, Federal University of Alagoas, Brazil
Rafael Ferreira, Federal University of Alagoas, Brazil
Lucas M. Braz, Federal University of Alagoas, Brazil
Ig Ibert Bittencourt, Federal University of Alagoas, Brazil
Henrique Pacca L. Luna, Federal University of Alagoas, Brazil

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TUE 4:20 – 6:00   ROOM 404

(EC-2) Applications of Evolutionary Computing
Session Chair: Federico Divina, Pablo de Olavide University, Spain

Evolutionary Testing of Object-Oriented Software
Lucas Serpa Silva, University of Amsterdam, Netherlands
Maarten van Someren, University of Amsterdam, Netherlands

Probabilistic Developmental Program Evolution
Elmira Ghoulbeigi, Ryerson University, Canada
Marcus Vinicius dos Santos, Ryerson University, Canada

Parallel Genetic Algorithm Approaches Applied to Solve a Synchronized and Integrated Lot Sizing and Scheduling Problem
Claudio Fabiano Motta Toledo, Universidade Federal de Lavras, Brazil
Renato Resende Ribeiro de Oliveira, Universidade Federal de Lavras, Brazil
Lucas de Oliveira, Universidade Federal de Lavras, Brazil
Marluce Rodrigues Pereira, Universidade Federal de Lavras, Brazil

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TUE 4:20 – 6:00   ROOM 403

(CF) Computer Forensics
Session Chair: William R. Claycomb, Sandia National Laboratories, USA

Making Sense of Unstructured Flash-Memory Dumps
David Billard, University of Applied Sciences of Western Switzerland, Switzerland
Rolf Hauri, University of Applied Sciences of Western Switzerland, Switzerland

The 'Dresden Image Database' for Benchmarking Digital Image Forensics
Thomas Gloe, Technische Universität Dresden, Germany
Rainer Böhme, International Computer Science Institute, United States

E-Mail Authorship Verification for Forensic Investigation
Farkhund Iqbal, Concordia University, Canada
Liaquat A. Khan, Concordia University, Canada
Benjamin C.M. Fung, Concordia University, Canada
Mourad Debbabi, Concordia University, Canada

TUE 4:20 – 6:00   ROOM 105

(SOAP-3) Service Oriented Architecture and Programming
Session Chair: Christian Krause, CWI, Netherlands

Dynamic Set-Up of Monitoring Infrastructures for Service based Systems
Marco Comuzzi, Eindhoven University of Technology, Netherlands
George Spanoudakis, City University London, United Kingdom

Using XML Schema to Improve Writing, Validation, and Structure of WS-Policies
Steffen Heinzl, SAP Research, Germany
Benjamin Schmeling, SAP Research, Germany

A Tool for Rapid Development of WS-BPEL Applications
Luca Cesari, Università degli Studi di Firenze, Italy
Alessandro Lapadula, Università degli Studi di Firenze, Italy
Rosario Pugliese, Università degli Studi di Firenze, Italy
Francesco Tiezzi, Università degli Studi di Firenze, Italy

A Standard-Driven Implementaion of WS-BPEL 2.0
Tim Hallwyl, University of Copenhagen, Denmark
Fritz Henglein, University of Copenhagen, Denmark
Thomas Hildebrandt, University of Copenhagen, Denmark

Wednesday March 24, 2010

WED. 9:40–12:40   CORRIDOR LEVEL 0
Poster Session I

Posters of the following Tracks: AB, BIO, CIIA, CSP, CM, DM, DS, DTTA, EMBS, GCR, HCI, IAR, INFSEC, MMV, OOPS, OS, PADO, PL, PSC, ROBOT, RTS, SCS (see the detailed list of Posters on Page 36-37).

WED 9:00 – 10:40   ROOM 100

(DE-1) Document Engineering
Session Chair: Rafael Dueire Lins, Universidade Federal de Pernambuco, Brazil

Text versus Non-Text Distinction in Online Handwritten Documents
Emanuel Indermühle, University of Bern, Switzerland
Horst Bunke, University of Bern, Switzerland
Faisal Shafait, German Research Center for AI (DFKI), Germany
Thomas Breuel, German Research Center for AI (DFKI), Germany

Structural Handwritten and Machine Print Classification for Sparse Content and Arbitrary Oriented Document Fragments
Sukalpa Chanda, Gjøvik University College, Norway
Katrin Franke, Gjøvik University College, Norway
Umapada Pal, CVPR Unit, ISI, India

Scalable Indexing for Layout based Document Retrieval and Ranking
Loic Lecerf, Xerox Research Centre Europe, France
Boris Chidlovskii, Xerox Research Centre Europe, France

Document Retrieval using Image Features
Dan Smith, University of East Anglia, United Kingdom
Richard Harvey, University of East Anglia, United Kingdom

Evaluation of Different Feature Sets in an OCR Free Method for Word Spotting in Printed Documents
Israel Rios, PUCPR, Brazil
Alceu S. Britto Jr., PUCPR, Brazil
Alessandro Koerich, PUCPR, Brazil
Luiz E.S. Oliveira, UFPR, Brazil

WED 9:00 – 10:40   ROOM 105

(DADS-1) Dependable and Adaptive Distributed System

Session Chair: Karl M. Goeschka, Vienna University of Technology, Austria

Fast, Flexible, and Highly Resilient Genuine Fifo and Causal Multicast Algorithms
Nicolas Schiper, University of Lugano, Switzerland
Fernando Pedone, University of Lugano, Switzerland

TransPeer: Adaptive Distributed Transaction Monitoring for Web2.0 Applications
Idrissa Sarr, UPMC Paris Universitas, LIP6 Lab, France
Hubert Naacke, UPMC Paris Universitas, LIP6 Lab, France
Stéphane Gançarski, UPMC Paris Universitas, LIP6 Lab, France

S-Search: Finding RFID Tags using Scalable and Secure Search Protocol
Endadul Hoque, Marquette University, United States
Farzana Rahman, Marquette University, United States
Sheikh Iqbal Ahamed, Marquette University, United States

Improving Complex Distributed Software System Availability through Information Hiding
Li Wang, Illinois Institute of Technology, United States
Yair Leiferman, Illinois Institute of Technology, United States
Shangping Ren, Illinois Institute of Technology, United States
Kevin Kwiat, Air Force Research Laboratory, United States
Xiaowei Li, Chinese Academy of Sciences, China
Daniel A. Menascé, George Mason University, United States

Asynchronous Byzantine Consensus with 2f + 1 Processes
Miguel Correia, Universidade de Lisboa, Fac. Ciencias, Lasige, Portugal
Giuliana S. Veronese, Universidade de Lisboa, Fac. Ciencias, Lasige, Portugal
Lau Cheuk Lung, Universidade Federal de Santa Catarina, Brazil

WED 9:00 – 10:40   ROOM 200

(DM-1) Data Mining
Session Chair: Osmar Zaiane, University of Alberta, Canada

MICHO: A Scalable Constraint-Based Algorithm for Learning Bayesian Networks
Murugan Ayyappan, Nanyang Technological University, Singapore
Yew-Kwong Woon, EADS Innovation Works, Singapore
Wee-Keong Ng, Nanyang Technological University, Singapore

A Rough Set Approach to Mining Connections from Information Systems
Ken Kaneiwa, NICT, Japan

Mining Interesting Sets and Rules in Relational Databases
Bart Goethals, University of Antwerp, Belgium
Wim Le Page, University of Antwerp, Belgium
Michael Mampaey, University of Antwerp, Belgium

The Impact of Random Samples in Ensemble Classifiers
Paulo Fernandes, PUCRS, Brazil
Lucelene Lopes, PUCRS, Brazil
Duncan D.A. Ruiz, PUCRS, Brazil

WED 9:00 – 10:40   ROOM 404

(BIO-1) Bioinformatics
Session Chair: Paola Lecca, The Microsoft Research - University of Trento CoSBi, Italy

Invited Talk - Getting traction in a wet-lab world; a case study from proteome sequence analysis
Paul Horton
Leader, Sequence Analysis Team
Computational Biology Research Center (CBRC) Japan

An Incremental Algorithm for Efficient Unique Signature Discoveries on DNA Databases
Hsiao Ping Lee, Chung Shan Medical University, Taiwan
Tzu-Fang Sheu, Providence University, Taiwan
Chuan Yi Tang, National Tsing Hua University, Taiwan

A Framework for Cross-Disciplinary Hypothesis Generation
Yue Webster, Eli Lilly, United States
Ranga Gudivada, Eli Lilly, United States
Ernst Dow, Eli Lilly, United States
Jacob Koehler, Eli Lilly, United States
Mathew Palakal, IUPUI, United States

WED 9:00 – 10:40   ROOM 403

(SEC-1) Computer Security
Session Chair: Alessandro Sorniotti, SAP Research, France

Novel Immune-Based Framework for Securing AdHoc Networks
Yasir Abdelgadir Mohamed, Universiti Teknologi PETRONAS, Malaysia
Azween B. Abdullah, Universiti Teknologi PETRONAS, Malaysia

A Simple Role Mining Algorithm
Carlo Blundo, Università degli Studi di Salerno, Italy
Stelvio Cimato, Università degli studi di Milano, Italy

Can Complexity, Coupling, and Cohesion Metrics be used as Early Indicators of Vulnerabilities?
Istehad Chowdhury, Queen's University, Canada
Mohammad Zulkernine, Queen's University, Canada

Detecting Metamorphic Malwares using Code Graphs
Jusuk Lee, Korea University, Korea
Kyoochang Jeong, Korea University, Korea
Heejo Lee, Korea University, Korea

WED 9:00 – 10:40   ROOM 300

(SE-1) Software Engineering
Session Chair: Chang Oan Sung, Indiana University Southeast, USA

An Approach for Architectural Layer Recovery
Giuseppe Scanniello, University of Basilicata, Italy
Anna D'Amico, University of Basilicata, Italy
Carmela D'Amico, University of Basilicata, Italy
Teodora D'Amico, University of Basilicata, Italy

Checking Architectural Compliance in Component-Based Systems
Sebastian Herold, Clausthal University of Technology, Germany

Modeling and Analyzing Architectural Change with Alloy
Klaus Marius Hansen, University of Iceland, Iceland
Mads Ingstrup, Aarhus University, Denmark

Paving the Road for Formally Defined Architecture Description in Software Development
Rainer Weinreich, Johannes Kepler University Linz, Austria
Georg Buchgeher, Software Competence Center Hagenberg, Austria

Modeling the Variability of Architectural Patterns
Ahmad Waqas Kamal, University of Groningen, Netherlands
Paris Avgeriou, University of Groningen, Netherlands

10:40 – 11:10   LEVELS 3 & 4
Coffee Break

WED 11:10 – 12:50   ROOM   100

(DE-2) Document Engineering
Session Chair: Rafael Dueire Lins, Universidade Federal de Pernambuco, Brazil

Enhancing Document Structure Analysis using Visual Analytics
Andreas Stoffel, Siemens AG, Germany
David Spretke, University of Konstanz, Germany
Henrik Kinnemann, Siemens AG, Germany
Daniel Keim, University of Konstanz, Germany

An Automatic Linking Service of Document Images Reducing the Effects of OCR Errors with Latent Semantics
Renato F. Bulcão-Neto, Innolution Sistemas de Informática, Brazil
José Camacho-Guerrero, Innolution Sistemas de Informática, Brazil
Álvaro Barreiro, University of A Coruña, Spain
Javier Parapar, University of A Coruña, Spain
Alessandra A. Macedo, Universidade de São Paulo, Brazil

Seal Object Detection in Document Images using GHT of Local Component Shapes
Partha Pratim Roy, Universitat Autonoma de Barcelona, Spain
Umapada Pal, CVPR Unit, ISI, India
Josep Lladós, CVC, UAB, Spain

Automatically Detecting and Classifying Noises in Document Images
Rafael Dueire Lins, Universidade Federal de Pernambuco, Brazil
Gabriel Pereira e Silva, Universidade Federal de Pernambuco, Brazil
Serene Banergee, HP Labs, India
Anjaneyulu Kuchibhotla, HP Labs, India
Marcelo Thielo, HP Labs, Brazil

Exploring, Visualizing and Slicing the Soul of XML Documents
Daniela da Cruz, Universidade do Minho, Portugal
Pedro Rangel Henriques, Universidade do Minho, Braga, Portugal

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WED 11:10 – 12:50   ROOM 105

(DADS-2) Dependable and Adaptive Distributed System
Session Chair: Rui C. Oliveira, Universidade do Minho, Portugal

Exploiting Non-Functional Preferences in Architectural Adaptation for Self-Managed Systems
Daniel Sykes, Imperial College, United Kingdom
William Heaven, Imperial College London, United Kingdom
Jeff Magee, Imperial College London, United Kingdom
Jeff Kramer, Imperial College London, United Kingdom

Adaptive Internet Services through Performance and Availability Control
Jean Arnaud, INRIA, France
Sara Bouchenak, Grenoble University, France

MetaSelf – An Architecture and a Development Method for Dependable Self-* Systems
Giovanna Di Marzo Serugendo, Birkbeck College, United Kingdom
John Fitzgerald, Newcastle University, United Kingdom
Alexander Romanovsky, Newcastle University, United Kingdom

Software Adaptation Patterns for Service-Oriented Architectures
Hassan Gomaa, George Mason University, United States
Koji Hashimoto, George Mason University, United States
Minseong Kim, George Mason University, United States
Sam Malek, George Mason University, United States
Daniel A. Menascé, George Mason University, United States

Dynamic Context-Aware Business Process: A Rule-Based Approach Supported by Pattern Identification
Jose F. Mejia Bernal, Politecnico di Torino, Italy
Paolo Falcarin, Politecnico di Torino, Italy
Maurizio Morisio, Politecnico di Torino, Italy
Jia Dai, Politecnico di Torino, Italy

WED 11:10 – 12:50   ROOM 200

(DM-2) Data Mining
Session Chair: Alfredo Cuzzocrea, ICAR-CNR and University of Calabria, Italy

A Bayesian Classifier for Uncertain Data
Biao Qin, Indiana University - Purdue University, United States
Yuni Xia, Indiana University - Purdue University, United States
Fang Li, Indiana University - Purdue University, United States

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Probabilistic Context Prediction using Time-Inferred Multiple Pattern Networks
Yong-Hyuk Kim, Kwangwoon University, Korea
Wonkook Kim, Samsung Electronics Co., Ltd., Korea
Kyungsub Min, Samsung Electronics Co., Ltd., Korea
Yourim Yoon, Seoul National University, Korea

Malware Detection based on Mining API Calls
Ashkan Sami, Shiraz University, Iran
Babak Yadegari, Shiraz University, Iran
Hossein Rahimi, Shiraz University, Iran
Naser Peiravian, Shiraz University, Iran
Sattar Hashemi, Shiraz University, Iran
Ali Hamze, Shiraz University, Iran

ABBA: Adaptive Bicluster-Based Approach to Impute Missing Values in Binary Matrices
Alessandro Colantonio, Engiweb Security, Italy
Roberto Di Pietro, Università di Roma Tre, Italy
Alberto Ocello, Engiweb Security, Italy
Nino Vincenzo Verde, Università di Roma Tre, Italy

Mining Uncertain Data for Frequent Itemsets that Satisfy Aggregate Constraints
Carson Kai-Sang Leung, University of Manitoba, Canada
Boyu Hao, University of Manitoba, Canada
Dale A. Brajczuk, University of Manitoba, Canada

WED 11:10 – 12:50   ROOM 404

(BIO-2) Bioinformatics
Session Chair: Dan Tulpan, National Research Council of Canada, Canada

Expression Microarray Classification using Topic Models
Manuele Bicego, University of Verona, Italy
Pietro Lovato, University of Verona, Italy
Barbara Oliboni, University of Verona, Italy
Alessandro Perina, University of Verona, Italy

An Improved Algorithm to Enumerate All Traces that Sort a Signed Permutation by Reversals
Christian Baudet, Institute of Computing - University of Campinas, Brazil
Zanoni Dias, Institute of Computing - University of Campinas, Brazil

Advanced Querying Interface for Biochemical Network Databases
Brendan Elliott, Case Western Reserve University, United States
Steve Mayes, Case Western Reserve University, United States
Ali Cakmak, Case Western Reserve University, United States
Gultekin Ozsoyoglu, Case Western Reserve University, United States
Z. Meral Ozsoyoglu, Case Western Reserve University, United States

A Stochastic Approach to Candidate Disease Gene Subnetwork Extraction
Mohammad Shafkat Amin, Wayne State University, United States
Anupam Bhattacharjee, Wayne State University, United States
Russell L. Finley Jr., Wayne State University, United States
Hasan Jamil, Wayne State University, United States

FANGS: High Speed Sequence Mapping for Next generation Sequencers
Sanchit Misra, Northwestern University, United States
Ramanathan Narayanan, Northwestern University, United States
Simon Lin, Northwestern University, United States
Alok Choudhary, Northwestern University, United States

WED 11:10 – 12:50   ROOM 403

(SEC-2) Computer Security
Session Chair: Alessandro Sorniotti, SAP Research, France

Botzilla: Detecting the "Phoning Home" of Malicious Software
Konrad Rieck, Berlin Institute of Technology, Germany
Guido Schwenk, Fraunhofer Institute FIRST, Germany
Tobias Limmer, University of Erlangen, Germany
Thorsten Holz, Technical University Vienna, Austria
Pavel Laskov, University of Tübingen, Germany

R-LEAP+: Randomizing LEAP+ Key Distribution to Resist Replay and Jamming Attacks
Sam Blackshear, Williams College, United States
Rakesh M. Verma, University of Houston, United States

Using Logic-Based Reduction for Adversarial Component Recovery
J. Todd McDonald, Air Force Institute of Technology, United States
Eric D. Trias, Air Force Institute of Technology, United States
Yong C. Kim, Air Force Institute of Technology, United States
Michael R. Grimaila, Air Force Institute of Technology, United States

Cooperation Enablement for Centralistic Early Warning Systems
Ulrich Flegel, SAP Research CEC Karlsruhe, Germany
Johannes Hoffmann, TU Dortmund, Germany
Michael Meier, TU Dortmund, Germany

WED 11:10 – 12:50   ROOM 300

(SE-2) Software Engineering
Session Chair: Chang Oan Sung, Indiana University Southeast, USA

Extraction of Component-Environment Interaction Model using State Space Traversal
Pavel Parizek, Charles University in Prague, Czech Republic
Nodir Yuldashev, Charles University in Prague, Czech Republic

SysML-Based Requirement Modeling Environment for Multicore Embedded System
Chih-Hung Chang, Hsiuping Institute of Technology, Taiwan
Chih-Wei Lu, Hsiuping Institute of Technology, Taiwan
William C. Chu, Tunghai University, Taiwan
Chih-Hsiong Shih, Tunghai University, Taiwan
Chao-Tung Yang, Tunghai University, Taiwan
Pao-Ann Hsiung, National Chung Cheng University, Taiwan
Nien-Lin Hsueh, Feng Chia University, Taiwan
Chorng-Shiuh Koong, National Taichung University, Taiwan

Graph-Based Verification of Static Program Constraints
Selim Ciraci, University of Twente, Netherlands
Pim van den Broek, University of Twente, Netherlands
Mehmet Aksit, University of Twente, Netherlands

MatchBox: Combined Meta-Model Matching for Semi-Automatic Mapping Generation
Konrad Voigt, SAP Research, Germany
Petko Ivanov, SAP Research, Germany
Andreas Rummler, SAP Research, Germany

A Formal Approach to Reuse Successful Traceability Practices in SPL Projects
Angelina Espinoza, Universidad Politecnica de Madrid, Spain
Goetz Botterweck, University of Limerick, Ireland
Juan Garbajosa, Universidad Politecnica de Madrid, Spain

12:50 – 2:10   LEVELS 0 & 2
Lunch Break

WED. 2:40 – 5:40 CORRIDOR LEVEL 0
Poster Session II

Posters of the following Tracks: AOMIP, CC, CF, DADS, DE, EE, EC, MCA, NETS, PW, RE, SE, SIM, SOAP, SWA, WT, WSNA (see the detailed list of Posters on Page 39).

WED 2:10 – 3:50   ROOM 100

(OS-1) Operating Systems
Session Chair: Sangho Yi, INRIA, France

Load-Based Covert Channels between Xen Virtual Machines
Keisuke Okamura, University of ElectroCommunications, Japan
Yoshihiro Oyama, University of Electro-Communications, Japan

Task-Aware based Co-Scheduling for Virtual Machine System
Yuebin Bai, Beihang University, China
Cong Xu, Beihang University, China
Zhi Li, Beihang University, China
Cheng Luo, Beihang University, China

Energy Efficient Program Updating for Sensor Nodes with Flash Memory
Junyoung Heo, Hansung University, Korea
Boncheol Gu, Seoul National University, Korea
Sang Il Eo, Seoul National University, Korea
Pankoo Kim, Chosun University, Korea
Gwangil Jeon, Korea Polytechnic University, Korea

Swap-Before-Hibernate: A Time Efficient Method to Suspend an OS to a Flash Drive
Shi-wu Lo, Computer Science & Information Engineering, National Chung-Cheng University, Taiwan
Wei-shiuan Tsai, Computer Science & Information Engineering, National Chung-Cheng University, Taiwan
Jeng-gang Lin, Computer Science & Information Engineering, National Chung-Cheng University, Taiwan
Guan-shiung Cheng, Computer Science & Information Engineering, National Chung-Cheng University, Taiwan

Performance and Extension of User Space File Systems
Aditya Rajgarhia, Stanford University, United States
Ashish Gehani, SRI International, United States

WED 2:10 – 3:50   ROOM 105

(EMBS-1) Embedded Systems
Session Chair: Alessio Bechini, University of Pisa, Italy

Reactive Parallel Processing for Synchronous Dataflow
Claus Traulsen, Christian-Albrechts-Universität zu Kiel, Germany
Reinhard von Hanxleden, Christian-Albrechts-Universität zu Kiel, Germany

Application-Guided Tool Development for Architecturally Diverse Computation
R.D. Chamberlain, Washington University in St. Louis, United States
J. Buhler, Washington University in St. Louis, United States
M. Franklin, Washington University in St. Louis, United States
J.H. Buckley, Washington University in St. Louis, United States

Flash-Aware Cluster Allocation Method based on Filename Extension for FAT File System
Seungwoo Ryu, Samsung Advanced Institute of Technology, Korea
Chul Lee, Samsung Advanced Institute of Technology, Korea
Sanghyun Yoo, Samsung Advanced Institute of Technology, Korea
Sungjong Seo, Samsung Advanced Institute of Technology, Korea

A Fast Multiplier-Less Edge Detection Accelerator for FPGAs
Nikos Anastasiadis, Royal Institute of Technology, Sweden
Isidoros Sideris, National Technical University of Athens, Greece
Kiamal Pekmestzi, National Technical University of Athens, Greece

A Real-Time Architecture Design Language for Multi-Rate Embedded Control Systems
Julien Forget, ONERA, France
Frédéric Boniol, ONERA, France
David Lesens, EADS Astrium Space Transportation, France
Claire Pagetti, ONERA, France

WED 2:10 – 3:50   ROOM 200

(DM-3) Data Mining
Session Chair: Ashkan Sami, Shiraz University, Iran

A Study on Interestingness Measures for Associative Classifiers
Mojdeh Jalali-Heravi, University of Alberta, Canada
Osmar R. Zaiäne, University of Alberta, Canada

Mining Preorder Relation between Knowledge Units from Text
Jun Liu, Xi'an Jiaotong University, China
Lu Jiang, Xi'an Jiaotong University, China
Zhaohui Wu, Xi'an Jiaotong University, China
Qinghua Zheng, Xi'an Jiaotong University, China
Yanan Qian, Xi'an Jiaotong University, China

Constrained Colocation Mining: Application to Soil Erosion Characterization
Frédéric Flouvat, University of New Caledonia, New Caledonia
Nazha Selmaoui-Folcher, University of New Caledonia, New Caledonia
Dominique Gay, University of New-Caledonia, New Caledonia
Isabelle Rouet, University of New Caledonia, New Caledonia
Chloé Grison, University of New Caledonia, New Caledonia

A Persistent HY-Tree to Efficiently Support Itemset Mining on Large Datasets
Elena Baralis, Politecnico di Torino, Italy
Tania Cerquitelli, Politecnico di Torino, Italy
Silvia Chiusano, Politecnico di Torino, Italy

Transductive Learning for Spatial Regression with Co-Training
Annalisa Appice, University of Bari, Italy
Michelangelo Ceci, University of Bari, Italy
Donato Malerba, University of Bari, Italy

WED 2:10 – 3:50   ROOM 404

(BIO-3) Bioinformatics
Session Chair: Pedro Ribeiro

PROM-OOGLE – Data Mining and Integration of On-line Databases to Discover Gene Promoters
Dean Cheng, University of Alberta, Canada
John Sheldon, University of Alberta, Canada
Marcelo Marcet-Palacios, University of Alberta, Canada
Osmar R. Zaiane, University of Alberta, Canada

Hypothesis Generation and Ranking Based on Event Similarities
Taiki Miyanishi, Kobe University, Japan
Kazuhiro Seki, Kobe University, Japan
Kuniaki Uehara, Kobe University, Japan

G-Tries: An Efficient Data Structure for Discovering Network Motifs
Pedro Ribeiro, Universidade do Porto, Portugal

Virus DNA-fragment Classification using Taxonomic Hidden Markov Model Profiles
Mark Menor, University of Hawaii, United States
Kyungim Baek, University of Hawaii, United States
Mahdi Belcaid, University fo Hawaii, United States
Yannick Gingras, Universite du Quebec a Montreal, Canada
Guylaine Poisson, University of Hawaii Manoa, United States

A Cytoscape based Integrative Framework for Efficient Sub-graph Isomorphic Protein-Protein Interaction Motif Lookup
Mohammad Shafkat Amin, Wayne State University, United States
Anupam Bhattacharjee, Wayne State University, United States
Hasan Jamil, Wayne State University, United States

WED 2:10 – 3:50   ROOM 403

(WSNA-1) Wireless Sensor Networks and Applications
Session Chair: Nigamanth Sridhar, Cleveland State University, USA

Integrating Real-Time Hybrid Task Scheduling into a Senor Node Platform
Taehoon Kim, School of Computer Science and Engineering, Pusan National University, Korea
Bora Kang, School of Computer Science and Engineering, Pusan National University, Korea
E.K. Park, City University of New York, United States
Sungwoo Tak, Pusan National University, Korea

An Operating System Abstraction Layer for Portable Applications in Wireless Sensor Networks
Ramon Serna Oliver, TU-Kaiserslautern, Germany
Ivan Shcherbakov, TU-Kaiserslautern, Germany
Gerhard Fohler, TU-Kaiserslautern, Germany

Leveraging Fuzzy Query Processing to Support Application Development in Wireless Sensor Networks
Marguerite Doman, UNC Charlotte, United States
Jamie Payton, UNC Charlotte, United States
Teresa Dahlberg, UNC Charlotte, United States

Dealing with Application Requirements and Energy Consumption in Wireless Sensor Networks: A Novelty Detection Approach for Quality of Query Services
Angelo Brayner, University of Fortaleza, Brazil
André L.V. Coelho, University of Fortaleza, Brazil
Karina Marinho de Souza, University of Fortaleza, Brazil

WED 2:10 – 3:50   ROOM 300

(SE-3) Software Engineering
Session Chair: Eric Wong, University of Texas at Dallas, USA

Data Generation in Model-Based Testing
Padmanabhan Krishnan, Bond University, Australia
Percy Pari-Salas, Bond University, Australia

A Study of Relative Redundancy in Test-Suite Reduction While Retaining or Improving Fault-Localization Effectiveness
Xin Zhang, Nanjing University, China
Qing Gu, Nanjing University, China
Xiang Chen, Nanjing University, China
Jingxian Qi, Nanjing University, China
Daoxu Chen, Nanjing University, China

An Overview and an Empirical Evaluation of UML-AOF – An UML Profile for Aspect-Oriented Frameworks
José Uetanabara Júnior, Centro Universitário Eurípedes de Marília – Univem, Brazil
Rosângela Dellosso Penteado, Universidade Federal de São Carlos - UFSCar, Brazil
Valter Vieira de Camargo, Universidade Federal de São Carlos - UFSCar, Brazil

Quantitative Assessments of Key Success Factors in Software Process Improvement for Small and Medium Web Companies
Muhammad Sulayman, University of Auckland, New Zealand
Emilia Mendes, University of Auckland, New Zealand

Measuring the Alignment between Business Processes and Software Systems: A Case Study
Lerina Aversano, University of Sannio, Italy
Carmine Grasso, University of Sannio, Italy
Maria Tortorella, University of Sannio, Italy

3:50 – 4:20   LEVELS 3 & 4
Coffee Break

WED 4:20 – 6:00   ROOM 100

(OS-2) Operating systems
Session Chair: Chaedeok Lim, ETRI, Korea

A Hybrid Prefetch Policy for the Retrieval of Link-Associated Information on Vehicular Networks
Junghoon Lee, Jeju National University, Korea
Gyung-Leen Park, Jeju National University, Korea
Sang-Wook Kim, Hanyang University, Korea
Hye-Jin Kim, Jeju National University, Korea
Sung Y. Shin, South Dakota State University, United States

Hypervisor-Based Prevention of Persistent Rootkits
Yosuke Chubachi, University of Tsukuba, Japan
Takahiro Shinagawa, University of Tsukuba, Japan
Kazuhiko Kato, University of Tsukuba, Japan

Chordet: An Efficient and Transparent Replication for Improving Availability of Peer-to-Peer Networked Systems
Geunyoung Park, Seoul National University, Korea
Seokhyun Kim, Seoul National University, Korea
Yookun Cho, Seoul National University, Korea
Joongjin Kook, Soongsil University, Korea
Jiman Hong, Soongsil University, Korea

An Aspect-Oriented Framework for Operating System Evolution
Jing Chen, Department of Electrical Engineering, National Cheng Kung University, Taiwan
Hui-Min Su, Department of Electrical Engineering, National Cheng Kung University, Taiwan
Chien-Fu Chou, Department of Electrical Engineering, National Cheng Kung University, Taiwan

Dynamic Register-Renaming Scheme for Reducing Power-Density and Temperature
Jungwook Kim, Seoul National University, Korea
Seong Tae Jhang, University of Suwon, Korea
Chu Shik Jhon, Seoul National University, Korea

WED 4:20 – 6:00   ROOM 105

(EMBS-2) Embedded Systems
Session Chair: Alessio Bechini, University of Pisa, Italy

Design and Development of a Real-Time Embedded Inertial Measurement Unit
Tullio Facchinetti, University of Pavia, Italy
Alberto Savioli, University of Pavia, Italy
Emanuele Goldoni, University of Pavia, Italy

Digital Energy Metering for Electrical System Management
D.P. O'Connell, Cape Peninsula University of Technology, South Africa
I.D. de Vries, Cape Peninsula University of Technology, South Africa

Dynamic Task Set Partitioning based on Balancing Resource Requirements and Utilization to Reduce Power Consumption
Diana Bautista, Universidad Politécnica de Valencia, Spain
Julio Sahuquillo, Universidad Politecnica de Valencia, Spain
Houcine Hassan, Universidad Politécnica de Valencia, Spain
Salvador Petit, Universidad Politécnica de Valencia, Spain
José Duato, Universidad Politécnica de Valencia, Spain

Energy-Efficient Scheduling on Homogeneous Multiprocessor Platforms
Jian-Jia Chen, Swiss Federal Institute of Technology (ETH) Zurich, Switzerland
Lothar Thiele, Swiss Federal Institute of Technology (ETH) Zurich, Switzerland

Efficient Mapping and Voltage Islanding Technique for Energy Minimization in NoC under Design Constraints
Pavel Ghosh, Arizona State University, United States
Arunabha Sen, Arizona State University, United States

WED 4:20 – 6:00   ROOM 200

(DM-4) Data Mining
Session Chair: Carson Leung, The University of Manitoba, Canada

Complex Objects Ranking: A Relational Data Mining Approach
Michelangelo Ceci, University of Bari, Italy
Annalisa Appice, University of Bari, Italy
Corrado Loglisci, University of Bari, Italy
Donato Malerba, University of Bari, Italy

Mining Models of Exceptional Objects through Rule Learning
Gianni Costa, ICAR/CNR, Italy
Fabio Fassetti, ICAR/CNR, Italy
Massimo Guarascio, ICAR-CNR, Italy
Giuseppe Manco, ICAR/CNR, Italy
Riccardo Ortale, ICAR/CNR, Italy

Eigenvector-Based Clustering using Aggregated Similarity Matrices
Hans-Henning Gabriel, Otto-von-Guericke-University Magdeburg, Germany
Myra Spiliopoulou, Otto-von-Guericke-University Magdeburg, Germany
Alexandros Nanopoulos, Hildesheim University, Germany

OASNET: An Optimal Allocation Approach to Influence Maximization in Modular Social Networks
Tianyu Cao, University of Vermont, United States
Xindong Wu, University of Vermont, United States and Hefei University of Technology, China,
Song Wang, University of Vermont, United States
Xiaohua Hu, Drexel University, United States

Efficiently Detecting Clusters of Mobile Objects in the Presence of Dense Noise
James Rosswog, Binghamton University, United States
Kanad Ghose, Binghamton University, United States

WED 4:20 – 6:00   ROOM 404

(AB) Applied Biometrics
Session Chair: Jean Hennebert, University of Applied Sciences Western Switzerland and University of Fribourg, Switzerland

Experimental Study on the Impact of Robust Watermarking on Iris Recognition Accuracy
Jutta Hämmerle-Uhl, Department of Computer Sciences, Salzburg University, Austria
Karl Raab, Department of Computer Sciences, Salzburg University, Austria
Andreas Uhl, Department of Computer Sciences, Salzburg University, Austria

A Discriminated Correlation Classifier for Face Recognition
Zhongkai Han, Tsinghua University, China
Chi Fang, Tsinghua University, China
Xiaoqing Ding, Tsinghua University, China

Visual Processing-Inspired Fern-Audio Features for Noise-Robust Speaker Verification
Anindya Roy, Idiap Research Institute, Switzerland
Sébastien Marcel, Idiap Research Institute, Switzerland

Personal Identification using Periocular Skin Texture
Philip E. Miller, Clemson University, United States
Allen W. Rawls, Clemson University, United States
Shrinivas J. Pundlik, Clemson University, United States
Damon L. Woodard, Clemson University, United States

WED 4:20 – 6:00   ROOM 403

(WSNA-2) Wireless Sensor Networks and Applications
Session Chair: Dongwan Shin, New Mexico Tech, USA

Towards Higher throughput and Energy Efficiency in Dense Wireless Ad Hoc and Sensor Networks
Wei Zhou, Texas A&M University, United States
Radu Stoleru, Texas A&M University, United States

Network-Adaptive Management of Computation Energy in Wireless Sensor Networks
Fabrizio Mulas, University of Cagliari, Italy
Andrea Acquaviva, Politecnico di Torino, Italy
Salvatore Carta, University of Cagliari, Italy
Gianni Fenu, University of Cagliari, Italy
Davide Quaglia, University of Verona, Italy
Franco Fummi, University of Verona, Italy

Analysis of Collision Probability in Unsaturated Situation

Qian Dong, Faculty of Computer Science, Technical University of Dresden, Germany
Waltenegus Dargie, Faculty of Computer Science, Technical University of Dresden, Germany

A Group-Based Security Policy for Wireless Sensor Networks

William Claycomb, Computer Science, New Mexico Tech, United States
Rodrigo Lopes, Computer Science, New Mexico Tech, United States
Dongwan Shin, Computer Science, New Mexico Tech, United States
Byunggi Kim, College of Information Technology, Soongsil University, Korea

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WED 4:20 – 6:00   ROOM 300

(SE-4) Software Engineering
Session Chair: Eric Wong, University of Texas at Dallas, USA

Semi-Automated Diagnosis of FODA Feature Diagram

Shin Nakajima, National Institute of Informatics, Japan

Combining Independent Model Transformations

Anne Etien, INRIA - University of Lille 1, France
Alexis Muller, INRIA - University of Lille 1, France
Thomas Legrand, INRIA - University of Lille 1, France
Xavier Blanc, INRIA - University of Lille 1, France

An Approach to Developing Reusable Domain Services for Service Oriented Applications

Joonseok Park, Pusan National University, Korea
Jeonghan Kim, Pusan National University, Korea
Sanghyun Yun, Pusan National University, Korea
Mikyeong Moon, Dongseo University, Korea
Keunhyuk Yeom, Pusan National University, Korea

DBSA – A Device-Based Software Architecture for Data Mining

Janne Kätevä, University of Oulu, Finland
Perttu Laurinen, University of Oulu, Finland
Taneli Rautio, University of Oulu, Finland
Jaakko Suutala, University of Oulu, Finland
Lauri Tuovinen, University of Oulu, Finland
Juha Röning, University of Oulu, Finland

Feature Interaction Networks

Stefan Sobernig, New Media Lab, Vienna University of Economics and Business, Austria

Thursday March 25, 2010

P2P, DSM, and Other Products of the Complexity Factory

Dr. Willy Zwaenepoel
Professor and Dean of the School of Computer and Communication Sciences
EPFL, Lausanne, Switzerland

10:40 – 11:10　　　　**LEVELS 3 & 4**

Coffee Break

THU 11:10 – 12:50　　　　**ROOM 403**

(RTS-1) Real Time Systems
Session Chair: Rodrigo Santos - Universidad Nacional del Sur, Argentina

RTTM: Real-Time Transactional Memory
Martin Schoeberl, Vienna University of Technology, Austria
Florian Brandner, Vienna University of Technology, Austria
Jan Vitek, Purdue University, United States

Profit and Penalty Aware (PP-aware) Scheduling for Tasks with Variable Task Execution Time
Yue Yu, Illinois Institute of Technology, United States
Shangping Ren, Illinois Institute of Technology, United States
Nianen Chen, Illinois Institute of Technology, United States
Xing Wang, Illinois Institute of Technology, United States

Sporadic Server Revisited
Dario Faggioli, Scuola Superiore Sant'Anna, Italy
Marko Bertogna, Scuola Superiore Sant'Anna, Italy
Fabio Checconi, Scuola Superiore Sant'Anna, Italy

Load Forecasting Applied to Soft Real-Time Web Clusters
Carlos Santana, Universidade Federal Fluminense, Brazil

J.C.B. Leite, Universidade Federal Fluminense, Brazil
Daniel Mossé, University of Pittsburgh, United States

Performance analysis of FlexRay-Based Systems using Real-Time Calculus, Revisited
Devesh B. Chokshi, ETH Zurich, Switzerland
Purandar Bhaduri, Indian Institute of Technology Guwahati, India

THU 11:10 – 12:50　　　　**ROOM 300**

(NETS-1) Networking
Session Chair: Edmundo Monteiro, University of Coimbra, Portugal

An Improved WLAN-first Access Scheme for UMTS/WLAN Integrated System
Sibaram Khara, Vellore Institute of Technology, India
Iti Saha Mishra, Jadavpur University, India
Debashis Saha, Indian Institute of Management, India

A Multi-Objective Optimization Approach for Fault-Tolerance Provisioning in Multi-Radio Hybrid Wireless-Optical Broadband Access Networks
G. Schutz, Universidade do Algarve, Portugal
N. Correia, Universidade do Algarve, Portugal

MMSRP: Multi-Wavelength Markov-Based Split Reservation Protocol for DWDM Optical Networks
Malabika Sengupta, Kalyani Government Engineering College, India
Swapan Kumar Mondal, Kalyani Government Engineering College, India
Debashis Saha, Indian Institute of Management (IIM) Calcutta, India

A Novel Stable and Low-Maintenance Clustering Scheme
Luís Conceição, University of Coimbra, Portugal
David Palma, University of Coimbra, Portugal
Marilia Curado, University of Coimbra, Portugal

A New Two Level Hierarchy Structuring for Node Partitioning in Ad Hoc Networks
Benaouda Nacéra, Sétif Automatic Laboratory, Algeria
Guyennet Hervé, University of Franche Comté, France
Hammad Ahmed, University of Franche Comté, France
Mostefai Mohammed, Sétif Automatic Laboratory, Algeria

THU 11:10 – 12:50　　　　**ROOM 105**

(CIIA-1) Computational Intelligence and Image Analysis
Session Chair: AC Rosa, Technical University of Lisbon, Portugal

Semantic Scene Detection System for Baseball Videos based on the MPEG-7 Specification
Yin-Fu Huang, National Yunlin University of Science and Technology, Taiwan
Lien-Hung Tung, National Yunlin University of Science and Technology, Taiwan

A New Methodology for Photometric Validation in Vehicles Visual Interactive Systems
Alexandre W.C. Faria, Universidade Federal de Minas Gerais, Brazil
David Menotti, Universidade Federal de Ouro Preto, Brazil
Daniel S.D. Lara, Universidade Federal de Minas Gerais, Brazil
Gisele L. Pappa, Universidade Federal de Minas Gerais, Brazil
Arnaldo A. Araújo, Universidade Federal de Minas Gerais, Brazil

A Committee Machine Implementing the Pattern Recognition Module for Fingerspelling Applications
Renata C.B. Madeo, University of São Paulo, Brazil
Sarajane M. Peres, University of São Paulo, Brazil
Helton H. Bíscaro, University of São Paulo, Brazil
Daniel B. Dias, University of São Paulo, Brazil
Clodis Boscarioli, State University of Western Paraná, Brazil

A Morphologic Three-Stage Approach for Detecting Exudates in Color Eye Fundus Images
Daniel Welfer, Universidade Federal do Rio Grande do Sul, Brazil
Jacob Scharcanski, Universidade Federal do Rio Grande do Sul, Brazil
Diane Ruschel Marinho, Universidade Federal do Rio Grande do Sul, Brazil

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THU 11:10 – 12:50   ROOM 200

(ROBOT-1) Intelligent Robotic Systems
Session Chair: Denis F. Wolf, University of Sao Paul, Brazil

Dispatching AGVs with Noisy Estimation of Crane Operation Time
Ri Choe, Pusan National University, Korea
Taejin Park, Pusan National University, Korea
Kwang Ryel Ryu, Pusan National University, Korea

Detecting Narrow Passages in Configuration Spaces via Spectra of Probabilistic Roadmaps
Hassan Mohy-ud-Din, LUMS School of Science & Engineering, Pakistan
Abubakr Muhammad, LUMS School of Science & Engineering, Pakistan

Coverage-Hole Trap Model in Target Tracking using Distributed Relay-Robot Network
Huawei Miao, University of Freiburg, Germany
Chia Ching Ooi, University of Freiburg, Germany
Xiaowen Wu, University of Freiburg, Germany
Christian Schindelhauer, University of Freiburg, Germany

THU 11:10 – 12:50   ROOM 100

(DTTA-1) Database Theory, Technology, and Applications
Session Chair: Junping Sun, Nova Southeastern University, USA

A Time Optimal Algorithm for Evaluating Tree Pattern Queries
Yangjun Chen, University of Winnpeg, Canada

Target-Based Database Synchronization
Madhu Ahluwalia, University of Maryland Baltimore County, United States
Ruchika Gupta, University of Maryland Baltimore County, United States
Aryya Gangopadhyay, University of Maryland Baltimore County, United States
Yelena Yesha, University of Maryland Baltimore County, United States
Michael McAllister, SAP, Canada

Query Systems in Similarity-Based Databases: Logical Foundations,
Expressive Power, and Completeness
Radim Belohlavek, Palacky University Olomouc, Czech Republic
Vilem Vychodil, Palacky University Olomouc, Czech Republic

Efficient Shortest Path Finding of k-Nearest Neighbor Objects in Road Network Databases
Sung-Hyun Shin, Hanyang University, Korea
Sang-Chul Lee, Hanyang University, Korea
Sang-Wook Kim, Hanyang University, Korea
Junghoon Lee, Jeju National University, Korea
Eul Gyu Im, Hanyang University, Korea

Empirical Analysis of Database Server Scalability using an N-Tier Benchmark with Read-Intensive Workload
Simon Malkowski, Georgia Institute of Technology, United States
Deepal Jayasinghe, Georgia Institute of Technology, United States
Markus Hedwig, Albert-Ludwigs-University, Germany
Junhee Park, Georgia Institute of Technology, United States
Yasuhiko Kanemasa, Fujitsu Laboratories Ltd., Japan
Calton Pu, Georgia Institute of Technology, United States

THU 11:10 – 12:50   ROOM 404

(SE-5) Software Engineering
Session Chair: Jungyeop Kim, Utica College, USA

Dealing with Anonymity in Wireless Sensor Networks
Alberto Coen-Porisini, University of Insubria, Italy
Pietro Colombo, University of Insubria, Italy
Sabrina Sicari, University of Insubria, Italy

A Multi-View Model-Driven Approach for Packaging Software Components
Amine Lajmi, IFP, France
Mikal Ziane, Laboratoire d'Informatique de Paris 6 (LIP6), France
Sylvie Cauvin, IFP, France
Tewfik Ziadi, Laboratoire d'Informatique de Paris 6 (LIP6), France

Monitoring MPI Programs for Performance Characterization and Management Control
Robert A. Ballance, Sandia National Laboratories, United States
Jonathan Cook, New Mexico State University, United States

Refinement of Models of Software Components
Zizhen Wang, Institute of Software, EECS, Peking University, China and UNU/IIST, Macau, China
Hanpin Wang, Institute of Software, EECS, Peking University, China
Naijun Zhan, Institute of Software, CAS, China

An Empirical Study of Requirements Model Understanding: Use Case vs. Tropos Models

Irit Hadar, MIS, University of Haifa, Israel
Tsvi Kuflik, MIS, University of Haifa, Israel
Anna Perini, FBK - IRST CIT, Italy
Iris Reinhartz-Berger, MIS, University of Haifa, Israel
Filippo Ricca, DISI, University of Genova, Italy
Angelo Susi, FBK-IRST CIT, Italy

12:50 – 2:10　　LEVELS 0 & 2
Lunch Break

THU 2:10 – 3:50　　ROOM　403

(RTS/PADO) Real Time Systems/Power-aware Design and Optimization
Session Chair: Jian-Jia Chen, ETH Zurich, Switzerland

Energy-Aware Dual-Mode Voltage Scaling for Weakly Hard Real-Time Systems

Linwei Niu, Claflin University, United States

A General Energy Optimization Model for Wireless Networks using Configurable Antennas

Song Guo, University of Aizu, Japan
Zhuzhong Qian, Nanjing University, China
Sanglu Lu, Nanjing University, China

Energy Efficient Management Scheme for Heterogeneous Secondary Storage System in Mobile Computers

Shu Liu, Microprocessor Research and Development Center of Peking University, China
Xu Cheng, Microprocessor Research and Development Center of Peking University, China
Xuetao Guan, Microprocessor Research and Development Center of Peking University, China
Dong Tong, Microprocessor Research and Development Center of Peking University, China

Energy-Efficient Real-Time Scheduling of Multimedia Tasks on Multi-Core Processors

Yi-Hung Wei, National Taiwan University, Taiwan
Chuan-Yue Yang, National Taiwan University, Taiwan
Tei-Wei Kuo, National Taiwan University, Taiwan
Shih-Hao Hung, National Taiwan University, Taiwan
Yuan-Hua Chu, Industrial Technology Research Institute, Taiwan

THU 2:10 – 3:50　　ROOM　300

(NETS-2) Networking
Session Chair: Marilia Curado, University of Coimbra, Portugal

Mode Independent Session Directory Service Architecture – A Unified Approach for ASM and SSM Multicast Networks

Piyush Harsh, University of Florida, United States
Richard Newman, University of Florida, United States

Load Balancing for Structured P2P Networks using the Advanced Finger Selection Algorithm (AFSA)

Jani Hautakorpi, Ericsson Research NomadicLab, Finland
Jouni Mäenpää, Ericsson Research NomadicLab, Finland

Quality of Service for Multicasting using NICE

Marc Brogle, University of Bern, Switzerland
Sebastian Barthlomé, University of Bern, Switzerland
Torsten Braun, University of Bern, Switzerland

Maintaining Data Reliability without Availability in P2P Storage Systems

Lluis Pamies-Juarez, Universitat Rovira i Virgili, Spain
Pedro Garcia-Lopez, Universitat Rovira i Virgili, Spain

SeRViSO: A Selective Retransmission Scheme for Video Streaming in Overlay Networks

Carlos Eduardo Lenz, Federal University of Santa Catarina, Brazil
Lau Cheuk Lung, Federal University of Santa Catarina, Brazil
Frank Augusto Siqueira, Federal University of Santa Catarina, Brazil
Philippas Tsigas, Chalmers University of Technology, Sweden
Wei Wei, Norwegian University of Science and Technology, Norway

THU 2:10 – 3:50　　ROOM　105

(CIIA-2) Computational Intelligence Image Analysis
Session Chair: Alexandre Wagner, FIAT Automobile, Brazil

An Improved K-View Algorithm for Image Texture Classification using New Characteristic Views Selection Methods

Yihua Lan, Huazhong University of Science and Technology, China
Hong Liu, Huazhong University of Science and Technology, China
Enmin Song, Huazhong University of Science and Technology, China
Chih-Cheng Hung, Huazhong University of Science and Technology, United States

Automatic Recognition of Finger Spelling for LIBRAS based on a Two Layer Architecture

Ednaldo B. Pizzolato, Universidade Federal de São Carlos, Brazil
Mauro dos Santos Anjo, Universidade Federal de São Carlos, Brazil
Guilherme C. Pedroso, Universidade Federal de São Carlos, Brazil

Reparameterization based Consistent Graph-Structured Linear Programs

Hongbo Zhou, Southern Illinois University, United States
Qiang Cheng, Computer Science Department, Southern Illinois University, United States
Zhikun She, LMIB and School of Mathematics and Systems Science, Beihang University, China

THU 2:10 – 3:50　　ROOM　200

(ROBOT-2) Intelligent Robotic Systems
Session Chair: Denis F. Wolf, University of Sao Paul, Brazil

MSP Algorithm: Multi-Robot Patrolling based on Territory Allocation using Balanced Graph Partitioning
David Portugal, Instituto de Sistemas e Robótica, University of Coimbra, Portugal
Rui Rocha, Instituto de Sistemas e Robótica, University of Coimbra, Portugal

Simulated Annealing based Algorithm for Smooth Robot Path Planning with Different Kinematic Constraints
Yi-Ju Ho, Institute of Information Science, Academia Sinica, Taiwan
Jing-Sin Liu, Institute of Information Science, Academia Sinica, Taiwan

Tracking Random Finite Objects using 3D-LIDAR in Marine Environments
Kwang Wee Lee, Nanyang Technological University, Singapore
Bharath Kalyan, Nanyang Technological University, Singapore
Sardha Wijesoma, Nanyang Technological University, Singapore
Martin Adams, Nanyang Technological University, Singapore
Franz S. Hover, Massachusetts Institute of Technology, United States
Nicholas M. Patrikalakis, Massachusetts Institute of Technology, United States

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THU 2:10 – 3:50   ROOM   100

(DTTA-2) Database Theory, Technology, and Applications
Session Chair: Junping Sun, Nova Southeastern University, USA

A Lightweight Framework for Testing Database Applications
Joe Tang, Hong Kong Polytechnic University, China
Eric Lo, Hong Kong Polytechnic University, China

Wikipedia Driven Autonomous Label Assignment in Wrapper Induced Tables with Missing Column Names
Mohammad Shafkat Amin, Wayne State University, United States
Anupam Bhattacharjee, Wayne State University, United States
Hasan Jamil, Wayne State University, United States

A Secure Multiparty Computation Privacy Preserving OLAP Framework over Distributed XML Data
Alfredo Cuzzocrea, ICAR Institute and University of Calabria, Italy
Elisa Bertino, Computer Science Department, Purdue University, United States

Adaptability in XML-to-Relational Mapping Strategies
Luboš Kulič, Charles University, Faculty of Mathematics and Physics, Czech Republic

A Distributed Protocol for Ensuring Replicated Database Consistency in Mobile Computing Environments
Alex Costa, University of Fortaleza, Brazil
Jose Maria Monteiro, University of Fortaleza, Brazil
Angelo Brayner, University of Fortaleza, Brazil

THU 2:10 – 3:50   ROOM   404

(PL) Programming Languages
Session Chair: Bostjan Slivnik, University of Ljubljana, Slovenia

Software Transactional Memory for Implicitly Parallel Functional Language
Petr Krajca, SUNY Binghamton, United States
Vilem Vychodil, SUNY Binghamton, United States

General Constant Expressions for System Programming Languages
Gabriel Dos Reis, Texas A&M University, United States
Bjarne Stroustrup, Texas A&M University, United States

Dual Analysis for Proving Safety and Finding Bugs
Corneliu Popeea, Max Planck Institute for Software Systems, Germany
Wei-Ngan Chin, National University of Singapore, Singapore

An Algorithm to Generate the Context-Sensitive Synchronized Control Flow Graph
M. Llorens, Technical University of Valencia, Spain
J. Oliver, Technical University of Valencia, Spain
J. Silva, Technical University of Valencia, Spain
S. Tamarit, Technical University of Valencia, Spain

A New Technique for Data Privatization in User-Level Threads and its use in Parallel Applications
Eduardo R. Rodrigues, Federal University of Rio Grande do Sul, Brazil
Philippe O.A. Navaux, Federal University of Rio Grande do Sul, Brazil
Jairo Panetta, INPE, Brazil
Celso L. Mendes, University of Illinois at Urbana-Champaign, United States

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3:50 – 4:20   LEVELS 3 & 4
Coffee Break

THU 4:20 – 6:00   ROOM   403

(SIM) Advances in Computer Simulation
Session Chair: Fabien Michel, Université Montpellier II, CNRS - France

Accelerating Multi-core Simulators
Aparna Mandke Dani, Indian Institute of Science, India
Keshavan Varadarajan, Indian Institute of Science, India
Bharadwaj Amrutur, Indian Institute of Science, India
Y.N. Srikant, Indian Institute of Science, India

A Two Stage Yard Crane Workload Partitioning and Job Sequencing Algorithm for Container Terminals
Xi Guo, Nanyang Technological University, Singapore
Shell Ying Huang, Nanyang Technological University, Singapore

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Identification and Control of Intrinsic Bias in a Multiscale Computational Model of Drug Addiction
Yariv Z. Levy, University of Massachusetts Amherst, United States
Dino Levy, New York University, United States
Jerrold S. Meyer, University of Massachusetts Amherst, United States
Hava T. Siegelmann, University of Massachusetts Amherst, United States

Modeling POMDPs for Generating and Simulating Stock Investment Policies
Augusto Cesar Espíndola Baffa, UNIRIO - Federal University of the State of Rio de Janeiro, Brazil
Angelo E.M. Ciarlini, UNIRIO - Federal University of the State of Rio de Janeiro, Brazil

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THU 4:20 – 6:00   ROOM   300

(NETS-3) Networking
Session Chair: Torsten Braun, University of Berne, Switzerland

Improving Cost and Accuracy of DPI Traffic Classifiers
Niccolò Cascarano, Politecnico di Torino, Italy
Luigi Ciminiera, Politecnico di Torino, Italy
Fulvio Risso, Politecnico di Torino, Italy

Transport Congestion Events Detection (TCED): Towards Decorrelating Congestion Detection from TCP
Pascal Anelli, LIM - Université de la Réunion, France
Emmanuel Lochin, ISAE - LAAS-CNRS, France
Fanilo Harivelo, LIM - Université de la Réunion, France
Dino Martin Lopez Pacheco, I3S - Université de Nice, France

Concept for Providing Guaranteed Service Level over an Array of Unguaranteed Commodity Connections
Antti Mäkelä, Helsinki University of Technology, Finland

CapaCon: Access Control Mechanism for Inter-Device Communications through TCP Connections
Mitsuhiro Mabuchi, Dept. of Computer Science, University of Tsukuba, Japan
Yasushi Shinjo, Dept. of Computer Science, University of Tsukuba, Japan
Koji Hasebe, Graduate School of Systems and Information Engineering, University of Tsukuba, Japan
Akira Sato, Dept. of Computer Science, University of Tsukuba, Japan
Kazuhiko Kato, Dept. of Computer Science, University of Tsukuba, Japan

Mitigating Denial of Capability Attacks using Sink Tree based Quota Allocation
Zhang Fu, Chalmers University of Technology, Sweden
Marina Papatriantafilou, Chalmers University of Technology, Sweden
Philippas Tsigas, Chalmers University of Technology, Sweden
Wei Wei, Norwegian University of Science and Technology, Norway

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THU 4:20 – 6:00   ROOM   105

(TRECK) Trust, Reputation, Evidence, and other Collaboration Know-how
Session Chair: Jean-Marc Seigneur, University of Geneva, Switzerland

Evaluating Trust in Grid Certificates
David O'Callaghan, Trinity College Dublin, Ireland
Louise Doran, Trinity College Dublin, Ireland
Brian Coghlan, Trinity College Dublin, Ireland

Fraud Detection in Reputation Systems in e-Markets using Logistic Regression
Rafael Maranzato, Universo Online Inc., Brazil
Adriano Pereira, Federal University of Minas Gerais, Brazil
Marden Neubert, Universo Online Inc., Brazil
Alair Pereira do Lago, USP, Brazil

Computing Multi-Party Trust Privately in O(n) Time Units Sending One (Possibly Large) Message at a Time
Shlomi Dolev, Ben-Gurion University, Israel
Niv Gilboa, Ben-Gurion University, Israel
Marina Kopeetsky, Sami Shamoon College, Israel

iTrust: An Integrated Trust Framework for Wireless Sensor Networks
Kuldeep Yadav, IIIT Delhi, India
Avinash Srinivasan, Pennsylvania Center for Digital Forensics, Bloomsburg University, United States

T2D: A Peer to Peer Trust Management System based on Disposition to Trust
Rachid Saadi, INRIA Rocquencourt, France
Jean-Marc Pierson, IRIT lab, University Paul Sabatier, France
Lionel Brunie, LIRIS lab, INSA de Lyon, France

THU 4:20 – 6:00   ROOM   200

(AOMIP) Agent-oriented Methodologies, Infrastructures, and Processes
Session Chair: Andrea Omicini, Alma Mater Studiorum - Università di Bologna a Cesena, Italy

A Metrics Suite for Evaluating Agent-Oriented Architectures
Iván García-Magariño, Universidad Complutense de Madrid, Spain
Massimo Cossentino, ICAR, Consiglio Nazionale delle Ricerche, Italy
Valeria Seidita, Universitá degli Studi di Palermo, Italy

Building an Agent Methodology from Fragments: The MEnSA Experience
Puviani Mariachiara, Università di Modena e Reggio Emilia, Italy
Massimo Cossentino, ICAR, Consiglio Nazionale delle Ricerche, Palermo, Italy
Giacomo Cabri, Università di Modena e Reggio Emilia, Italy
Ambra Molesini, Alma Mater Studiorum- Università di Bologna, Italy

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JAAF+T: A Framework to Implement Self-Adaptive Agents that Apply Self-Test

Andrew Diniz da Costa, Pontifícia Universidade Católica do Rio de Janeiro, Brazil
Camila Nunes, Pontifícia Universidade Católica do Rio de Janeiro, Brazil
Viviane Torres da Silva, Universidade Federal Fluminense, Brazil
Baldoino Fonseca, Pontifícia Universidade Católica do Rio de Janeiro, Brazil
Carlos J.P. de Lucena, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

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THU 4:20 – 6:00 ROOM 100

(DS) Data Streams

Session Chair: João Gama, University Porto, Portugal

A Wavelet-Based Sampling Algorithm for Wireless Sensor Networks Applications

André L.L. Aquino, UFOP, Brazil
Ricardo A.R. Oliveira, UFOP, Brazil
Elizabeth F. Wanner, UFOP, Brazil

Data Stream Anomaly Detection through Principal Subspace Tracking

Pedro Henriques Dos Santos Teixeira, PUC-Rio, Brazil
Ruy Luiz Milidiú, PUC-Rio, Brazil

A Fast Approximation Strategy for Summarizing a Set of Streaming Time Series

Alice Marascu, INRIA, France
Florent Masseglia, INRIA, France
Yves Lechevallier, INRIA, France

Online Mining of Temporal Maximal Utility Itemsets from Data Streams

Bai-En Shie, National Cheng Kung University, Taiwan
Vincent S. Tseng, National Cheng Kung University, Taiwan
Philip S. Yu, University of Illinois at Chicago, United States

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THU 4:20 – 6:00 ROOM 404

(PSC) Programming for Separation of Concerns

Session Chair: Emiliano Tramontana, University of Catania, Italy

Expressing Aspectual Interactions in Requirements Engineering – Experiences in the Slot Machine Domain

Arturo Zambrano, LIFIA, Facultad de Informática, Universidad Nacional de La Plata, Argentina
Johan Fabry, PLEIAD laboratory, Computer Science Department (DCC), University of Chile, Chile
Guillermo Jacobson, LIFIA, Facultad de Informática, Universidad Nacional de La Plata, Argentina
Silvia Gordillo, LIFIA, Facultad de Informática, Universidad Nacional de La Plata, Argentina

Dynamic Contract Layers

Robert Hirschfeld, Hasso-Plattner-Institut, Germany
Michael Perscheid, Hasso-Plattner-Institut, Germany
Christian Schubert, Hasso-Plattner-Institute, Germany
Malte Appeltauer, Hasso-Plattner-Institute, Germany

Intensional Changes: Modularizing Crosscutting Features

Peter Ebraert, Vrije Universiteit Brussel, Belgium
Theo D'Hondt, Vrije Universiteit Brussel, Belgium
Tim Molderez, Universiteit Antwerpen, Belgium
Dirk Janssens, Universiteit Antwerpen, Belgium

Using Aspects and Annotations to Separate Application Code from Design Patterns

Rosario Giunta, University of Catania, Italy
Giuseppe Pappalardo, University of Catania, Italy
Emiliano Tramontana, University of Catania, Italy

Friday March 26, 2010

FRI 9:00 – 10:40　　　ROOM　403

(RE-1) Requirements Engineering
Session Chair: João Araújo,　Universidade Nova de Lisboa　(FCT-UNL), Portugal

An Experience in using a Tool for Evaluating a Large Set of Natural Language Requirements
Antonio Bucchiarone, FBK-IRST, Italy
Stefania Gnesi, ISTI-CNR, Italy
Alessandro Fantechi, Dipartimento di Sistemi e Informática, Università' degli studi di Firenze, Italy
Gianluca Trentanni, ISTI-CNR, Italy

Transparency versus Security: Early Analysis of Antagonistic Requirements
Claudia Cappelli, PUC-Rio, Brazil
Herbet Cunha, PUC-Rio, Brazil
Bruno Gonzalez-Baixauli, Universidad de Valladolid, Spain
Julio Cesar Sampaio do Prado Leite, PUC-Rio, Brazil

UbiCheck: An Approach to Support Requirements Definition in the Ubicomp Domain
Rodrigo O. Spínola, COPPE - UFRJ, Brazil
Felipe C. do R. Pinto, COPPE - UFRJ, Brazil
Guilherme H. Travassos, COPPE - UFRJ, Brazil

An Investigation into the Notion of Non-Functional Requirements
Dewi Mairiza, Faculty of Engineering and Information Technology University of Technology Sydney, Australia
Didar Zowghi, Faculty of Engineering and Information Technology University of Technology Sydney, Australia
Nurie Nurmuliani, Faculty of Engineering and Information Technology University of Technology Sydney, Australia

FRI 9:00 – 10:40　　　ROOM　404

(CC-1) Cloud Computing
Session Chair: S.D Madhu Kumar, National Institute of Technology Calicut, India

A Business Driven Cloud Optimization Architecture
Marin Litoiu, York University, Canada
Murray Woodside, Carleton University, Canada
Johnny Wong, University of Waterloo, Canada
Joanna Ng, IBM Centre for Advanced Studies, Canada
Gabriel Iszlai, IBM Centre for Advanced Studies, Canada

An Optimized Capacity Planning Approach for Virtual Infrastructure Exhibiting Stochastic Workload
Swarna Mylavarapu, IBM, India
Vijay Sukthankar, IBM, India
Pradipta Banerjee, IBM, India

CloudXplor: A Tool for Configuration Planning in Clouds based on Empirical Data
Simon Malkowski, Georgia Institute of Technology, United States
Markus Hedwig, Albert-Ludwigs-University, Germany
Deepal Jayasinghe, Georgia Institute of Technology, United States
Calton Pu, Georgia Institute of Technology, United States
Dirk Neumann, Albert-Ludwigs-University, Germany

Client-Side Load Balancer using Cloud
Sewook Wee, Accenture Technology Labs, United States
Huan Liu, Accenture Technology Labs, United States

FRI 9:00 – 10:40　　　ROOM　100

(HCI-1) Human Computer Interaction
Session Chair: Carlos Duarte, University of Lisbon, Portugal

Input Device for Disabled Persons using Expiration and Tooth-Touch Sound Signals
Koichi Kuzume, Yuge National College of Technology, Japan

Recognizing Affect from Non-Stylized Body Motion using Shape of Gaussian Descriptors
Liyu Gong, Huazhong University of Science and Technology, China
Tianjiang Wang, Huazhong University of Science and Technology, China
Chengshuo Wang, Huazhong University of Science and Technology, China
Fang Liu, Huazhong University of Science and Technology, China
Fuqiang Zhang, Huazhong University of Science and Technology, China
Xiaoyuan Yu, Huazhong University of Science and Technology, China

Reality Cues-Based Interaction using Whole-Body Awareness
Anderson Maciel, Universidade de Caxias do Sul, Brazil
Luciana P. Nedel, Universidade Federal do Rio Grande do Sul, Brazil
Vitor A.M. Jorge, Universidade Federal do Rio Grande do Sul, Brazil
Juan M.T. Ibiapina, Universidade Federal do Rio Grande do Sul, Brazil
Luis F.M.S Silva, Universidade Federal do Rio Grande do Sul, Brazil

Collaborative Interaction through Spatially Aware Moving Displays
Anderson Maciel, Universidade de Caxias do Sul, Brazil
Luciana P. Nedel, Universidade Federal do Rio Grande do Sul, Brazil
Eduardo M. Mesquita, Universidade Federal do Rio Grande do Sul, Brazil
Marcelo H. Mattos, Universidade Federal do Rio Grande do Sul, Brazil
Gustavo M. Machado, Universidade Federal do Rio Grande do Sul, Brazil
Carla M.D.S. Freitas, Universidade Federal do Rio Grande do Sul, Brazil

(OOPS-1) Object Oriented Programming Languages and Systems
Session Chair: Davide Ancona, University of Genova, Italy

Implicit Invocation of Traits
Thomas Pawlitzki, Fernuniversität in Hagen, Germany
Friedrich Steimann, Fernuniversität in Hagen, Germany

Named and Default Arguments for Polymorphic Object-Oriented Languages
Lukas Rytz, École Polytechnique Fédérale de Lausanne, Switzerland
Martin Odersky, École Polytechnique Fédérale de Lausanne, Switzerland

Embedded Contract Languages
Manuel Fähndrich, Microsoft Research, United States
Michael Barnett, Microsoft Research, United States
Francesco Logozzo, Microsoft Research, United States

(IAR-1) Information Access and Retrieval
Session Chair: Gabriella Pasi, Università degli Studi di Milano Bicocca, Milano, Italy

Improving Automatic Music Genre Classification with Hybrid Content-Based Feature Vectors
Carlos N. Silla Jr., University of Kent, United Kingdom
Alessandro L. Koerich, Pontifical Catholic University of Paraná, Brazil
Celso A.A. Kaestner, Federal University of Technology of Paraná, Brazil

Adapting the tf idf Vector-Space Model to Domain Specific Information Retrieval
Claire Fautsch, University of Neuchâtel, Switzerland
Jacques Savoy, University of Neuchâtel, Switzerland

LFRP-Search: Multi-Layer Ranked Visual Faceted Search – An Approach to Cope with Complex Search Situations
Raiko Eckstein, University of Bamberg, Germany
Andreas Henrich, University of Bamberg, Germany
Nadine Weber, University of Bamberg, Germany

Extending Relational Algebra to Handle Bipolarity
Patrick Bosc, IRISA-ENSSAT, France
Olivier Pivert, IRISA-ENSSAT, France
Ludovic Liétard, IRISA-IUT Lannion, France
Amine Mokhtari, IRISA-ENSSAT, France

Extending a Hybrid Tag-Based Recommender System with Personalization
Frederico Durao, Aalborg University, Denmark
Peter Dolog, Aalborg University, Denmark

(CSP) Constraint Solving and Programming
Session Chair: Stefano Bistarelli, Università di Perugia, Italy and IIT-CNR, Pisa, Italy

Box Consistency through Adaptive Shaving
Alexandre Goldsztejn, Université de Nantes, France
Frédéric Goualard, Université de Nantes, France

Probabilistic Constraints for Reliability Problems
Elsa Carvalho, CENTRIA, Portugal
Jorge Cruz, CENTRIA, Portugal
Pedro Barahona, CENTRIA, Portugal

Variable Ranges in Linear Constraints
Salvatore Ruggieri, Università di Pisa, Italy
Fred Mesnard, Université de la Réunion, France

Constraint Processing in Relational Database Systems: From Theory to Implementation
James J. Lu, Emory University, United States
Sebastien Siva, Emory University, United States
Ojas Parekh, Emory University, United States
George H.L. Fletcher, Eindhoven University of Technology, Netherlands
Hantao Zhang, University of Iowa, United States

10:40 – 11:10   LEVELS 3 & 4
Coffee Break

(RE-2) Requirements Engineering
Session Chair: Rafael Dueire Lins, Universidade Federal de Pernambuco (UFPE), Brazil

A Deidealisation Semantics for KAOS
Richard Banach, University of Manchester, United Kingdom

Early Identification of Crosscutting Concerns in the Domain Model Guided by States
Leandro Antonelli, LIFIA, Facultad de Informática, UNLP, Argentina
Gustavo Rossi, LIFIA, Facultad de Informática, UNLP, Argentina
Julio Cesar Sampaio do Prado Leite, PUC-Rio, Brazil

Identifying and Modeling Aspectual Scenarios with Theme and MATA
Ana Sofia Penim, FCT/UNL, Portugal
João Araújo, UNL, Portugal

Towards Modular i* Models
Fernanda Alencar, UFPE, Brazil
Jaelson Castro, UFPE, Brazil
Marcia Lucena, UFPE, Brazil
Emanuel Santos, UFPE, Brazil
Carla Silva, UFPB, Brazil

João Araújo, UNL, Portugal
Ana Moreira, UNL, Portugal

FRI 11:10 – 12:50   ROOM 404

(CC-2) Cloud Computing
Session Chair: S.D Madhu Kumar, National Institute of Technology Calicut, India

Harnessing Input Redundancy in a MapReduce Framework
Shin-gyu Kim, Seoul National University, Korea
Hyuck Han, Seoul National University, Korea
Hyungsoo Jung, Seoul National University, Korea
Hyeonsang Eom, Seoul National University, Korea
Heon Y. Yeom, Seoul National University, Korea

Design of a Market-Based Mechanism for Quality Attribute Tradeoff of Services in the Cloud
Vivek Nallur, University of Birmingham, United Kingdom
Rami Bahsoon, University of Birmingham, United Kingdom

Towards Mobile Process as a Service
Sonja Zaplata, University of Hamburg, Germany
Winfried Lamersdorf, University of Hamburg, Germany

Semi-Join Computation on Distributed File Systems using Map-Reduce-Merge Model
M. Al Hajj Hassan, University of Orléans, France
M. Bamha, University of Orléans, France

FRI 11:10 – 12:50   ROOM 100

(HCI-2) Human Computer Interaction
Session Chair: Luís Carriço, University of Lisbon, Portugal

Scalable Analysis of Collective Behaviour in Smart Service Systems
Mieke Massink, CNR-ISTI, Italy
Michael Harrison, Newcastle University, United Kingdom
Diego Latella, CNR-ISTI, Italy

Transformation Templates: Adding Flexibility to Model-Driven Engineering of User Interfaces
Nathalie Aquino, Universidad Politécnica de Valencia, Spain
Jean Vanderdonckt, Université catholique de Louvain, Belgium
Oscar Pastor, Universidad Politécnica de Valencia, Spain

Semiotic Inspection Method in the Context of Educational Simulation Games
Daniela C.C. Peixoto, Universidade Federal de Minas Gerais, Brazil
Raquel O. Prates, Universidade Federal de Minas Gerais, Brazil
Rodolfo F. Resende, Universidade Federal de Minas Gerais, Brazil

Summarizing Observational Client-Side Data to Reveal Web Usage Patterns
Vagner Figuerêdo de Santana, Institute of Computing - UNICAMP, Brazil
M. Cecília C. Baranauskas, Institute of Computing and NIED - UNICAMP, Brazil

FRI 11:10 – 12:50   ROOM 105

(OOPS-2) Object Oriented Programming and Systems
Session Chair: Andy Kellens, Vrije Universiteit Brussel, Belgium

Scheduling Intense Applications Most 'Surprising' First
Sean Rooney, IBM Research, Switzerland

Implementing Software Product Lines using Traits
Lorenzo Bettini, Università di Torino, Italy
Ferruccio Damiani, Università di Torino, Italy
Ina Schaefer, Chalmers University of Technology, Sweden

Generic Flow-Sensitive Optimizing Transformations in C++ with Concepts
Xiaolong Tang, Texas A&M University, United States
Jaakko Järvi, Texas A&M University, United States

FRI 11:10 – 12:50   ROOM 200

(IAR-2) Information Access and Retrieval
Session Chair: Gloria Bordogna, Consiglio Nazionale delle Ricerche, Dalmine (Bg), Italy

Flexible Document-Query Matching based on a Probabilistic Content and Structure Score Combination
Mohamed Ben Aouicha, IRIT, France
Mohamed Tmar, ISIMS, Tunisia
Mohand Boughanem, IRIT, France

Addressing the Limited Scope Problem of Focused Crawling using a Result Merging Approach
Ari Pirkola, University of Tampere, Finland
Tuomas Talvensaari, University of Tampere, Finland

Prediction of Social Bookmarking based on a Behavior Transition Model
Tadanobu Furukawa, Fujitsu Laboratories Ltd., Japan
Sieshi Okamoto, Fujitsu Laboratories Ltd., Japan
Yutaka Matsuo, University of Tokyo, Japan
Mitsuru Ishizuka, University of Tokyo, Japan

Feature Selection for Ordinal Regression
Stefano Baccianella, ISTI-CNR, Italy
Andrea Esuli, ISTI-CNR, Italy
Fabrizio Sebastiani, ISTI-CNR, Italy

Focused Retrieval with Proximity Scoring
Michel Beigbeder, École Nationale Supérieure des Mines de Saint-Étienne, France

FRI 11:10 – 12:50   ROOM 300

(CM) Coordination Models, Languages, and Applications

Session Chair: Andrea Omicini, Alma Mater Studiorum - Università di Bologna a Cesena, Italy

Inter-DSL Coordination Support by Combining Megamodeling and Model Weaving

Frédéric Jouault, AtlanMod Team, INRIA RBA Center & EMN, France
Bert Vanhooff, DistriNet, K.U. Leuven, Belgium
Hugo Bruneliere, AtlanMod Team, INRIA RBA Center & EMN, France
Guillaume Doux, AtlanMod Team, INRIA RBA Center & EMN, France
Yolande Berbers, DistriNet, K.U. Leuven, Belgium
Jean Bezivin, AtlanMod Team, INRIA RBA Center & EMN, France

Agent-Based Coordination for the Sensor Web

Conor Muldoon, University College Dublin, Ireland
Richard Tynan, University College Dublin, Ireland
Gregory M.P. O'Hare, University College Dublin, Ireland
Michael J. O'Grady, University College Dublin, Ireland

Agents and Artefacts for Multiple Models Coordination

Julien Siebert, INRIA, France
Laurent Ciarletta, Ecole Nationale Supérieure des Mines de Nancy, France
Vincent Chevrier, Université Henri Poincare, France

Chemical-Inspired Self-Composition of Competing Services

Mirko Viroli, Alma Mater Studiorum - Università di Bologna, Italy
Matteo Casadei, Alma Mater Studiorum, Università di Bologna, Italy

Coordination in Open and Dynamic Environments with TuCSoN Semantic Tuple Centres

Elena Nardini, Alma Mater Studiorum - Università di Bologna, Italy
Mirko Viroli, Alma Mater Studiorum - Università di Bologna, Italy
Emanule Panzavolta, Alma Mater Studiorum - Università di Bologna, Italy

12:50 – 2:10 LEVELS 0 & 2
Lunch Break

FRI 2:10 – 3:50 ROOM 403

(PW) Privacy on the Web
Session Chair: Olivier Boissier, Ecole Nationale Supérieure des Mines de Saint-Etienne, France

A Data Perturbation Approach to Sensitive Classification Rule Hiding

Aggelos Delis, Dept. of Computer & Communications Engineering - University of Thessaly, Greece
Vassilios S. Verykios, Dept. of Computer & Communications Engineering - University of Thessaly, Greece
Achilleas A. Tsitsonis, University of Thessaly, Greece

Privacy Preserving Linear Discriminant Analysis from Perturbed Data

Somnath Chakrabarti, University of Maryland Baltimore County, United States
Zhiyuan Chen, University of Maryland Baltimore County, United States

Aryya Gangopadhyay, University of Maryland Baltimore County, United States
Shibnath Mukherjee, Yahoo! Research and Development, India

CNL4DSA – A Controlled Natural Language for Data Sharing Agreements

Ilaria Matteucci, IIT-CNR, Italy
Marinella Petrocchi, IIT-CNR, Italy
Marco Luca Sbodio, Hewlett Packard Italy Innovation Center, Italy

Secret Interest Groups (SIGs) in Social Networks with an Implementation on Facebook

Alessandro Sorniotti, SAP Research and Institut Eurécom, France
Refik Molva, Institut Eurécom, France

FRI 2:10 – 3:50 ROOM 404

(MCA-1) Mobile Computing and Applications
Session Chair: Alvin Chan, The Hong Kong Polytechnic University

Collaborative Context Management Framework for Mobile Ad Hoc Network Environments

Waskitho Wibisono, Caulfield School of IT, Monash University, Australia
Sea Ling, Caulfield School of IT, Monash University, Australia
Arkady Zaslavsky, Dept. Computer Science and Electrical Engineering,
Luleå University of Technology, Sweden

Towards Semantic-Based Adaptation Decisions for Context-Aware Mobile Computing

Edwin J.Y. Wei, Hong Kong Polytechnic University, China
Alvin Chan, Hong Kong Polytechnic University, China

An Indoor Tracking Algorithm with the Virtual Reference based Positioning

Yile Wang, Xi'An University of Technology, China
Junhuai Li, Xi'An University of Technology, China
Jing Zhang, Xi'An University of Technology, China
Lei Yu, Xi'An University of Technology, China

Considerations on Developing Mobile Applications based on the Capuchin Project

Marcio E.F. Maia, Federal University of Ceara, Brazil
Claysson Celes, Federal University of Ceara, Brazil
Rute Castro, Federal University of Ceara, Brazil
Rossana M.C. Andrade, Federal University of Ceara, Brazil

FRI 2:10 – 3:50 ROOM 100

(HCI-3) Human Computer Interaction
Session Chair: Luís Carriço, University of Lisbon, Portugal

Visualizing Time-Series Data in ProcessLines: Design and Evaluation of a Process Enterprise Application

Xiongfei Luo, Intelligent Engineering Lab., Institute of Software, Chinese Academy of Sciences, China
Feng Tian, Intelligence Engineering Lab, Institute of Software, Chinese Academy of Sciences, China
Wei Liu, Intelligence Engineering Lab, Institute of Software, Chinese Academy of Sciences, China
Dongxing Teng, Intelligence Engineering Lab, Institute of Software, Chinese Academy of Sciences, China

Guozhong Dai, Intelligence Engineering Lab, Institute of
Software, Chinese Academy of Sciences, China
Hongan Wang, Intelligence Engineering Lab, Institute of
Software, Chinese Academy of Sciences, China

How to Manage Interactive Dialogues of Avatar Agents by using 3D Spatial Information of Virtual World

Seung-Hyun Ji, Dept. of Computer Science and Engineering,
Pusan National University, Korea
Jong-Woo Kim, Dept. of Computer Science and Engineering,
Pusan National University, Korea
Tai-Jin Yoon, Dept. of Computer Science and Engineering, Pusan
National University, Korea
Hwan-Gue Cho, Dept. of Computer Science and Engineering,
Pusan National University, Korea

Where People and Cars Meet: Social Interactions to Improve Information Sharing in Large Scale Vehicular Networks

Ansar-Ul-Haque Yasar, Katholieke Universiteit Leuven, Belgium
Nasim Mahmud, Hasselt University - tUL - IBBT, Belgium
Davy Preuveneers, Katholieke Universiteit Leuven, Belgium
Kris Luyten, Hasselt University - tUL - IBBT, Belgium
Karin Coninx, Hasselt University - tUL - IBBT, Belgium
Yolande Berbers, Katholieke Universiteit Leuven, Belgium

Understanding Meta-Communication in an Inclusive Scenario

Elaine C.S. Hayashi, University of Campinas UNICAMP, Brazil
M. Cecília C. Baranauskas, Institute of Computing and NIED -
UNICAMP, Brazil

FRI 2:10 – 3:50   ROOM   105

(INFSEC-1) Information Security Research and Applications
Session Chair: Guido Schryen, University of
Freiburg, Germany

Ontology-Based Generation of IT-Security Metrics
Stefan Fenz, Vienna University of Technology and SBA Research,
Austria

An Electronic-Signature based Circular Resolution Database System
Thomas Zefferer, Graz University of Technology, Austria
Thomas Knall, Graz University of Technology, Austria

Filtering Spams using the Minimum Description Length Principle
Tiago A. Almeida, School of Electrical & Computer Engineering,
Univ. of Campinas - UNICAMP, Brazil
Akebo Yamakami, School of Electrical & Computer Engineering,
Univ. of Campinas - UNICAMP, Brazil
Jurandy Almeida, Institute of Computing, Univ. of Campinas -
UNICAMP, Brazil

Improving the Efficiency of Dynamic Malware Analysis
Ulrich Bayer, Vienna University of Technology, Austria
Engin Kirda, Institute Eurecom, France
Christopher Kruegel, University of California, Santa Barbara,
United States

FRI 2:10 – 3:50   ROOM   200

(IAR-3) Information Access and Retrieval
Session Chair: Gabriella Pasi, Università degli Studi di Milano
Bicocca, Milano, Italy

Combining Global and Local Information for Enhanced Deep Classification
Heung-Seon Oh, KAIST, Korea
Yoon-Jung Choi, KAIST, Korea
Sung-Hyon Myaeng, KAIST, Korea

Classification of Violent Web Images using Context based Analysis
Radhouane Guermazi, MIRACL ISIMS, Tunisia
Mohamed Hammami, MIRACL-FSS, Tunisia
Abdelmajid Ben Hamadou, MIRACL-ISIMS, Tunisia

Traveling among Clusters: A Way to Reconsider the Benefits of the Cluster Hypothesis
Sylvain Lamprier, LIP6 - Université Pierre et Marie Curie, France
Tassadit Amghar, LERIA - Université d'Angers, France
Bernard Levrat, LERIA - Université d'Angers, France
Frédéric Saubion, LERIA - Université d'Angers, France

A Knowledge-Rich Similarity Measure for Improving IT Incident Resolution Process
Yong-Bin Kang, Monash University, Australia
Arkady Zaslavsky, Monash University, Australia
Shonali Krishnaswamy, Monash University, Australia
Claudio Bartolini, HP Labs, United States

Query-Oriented Clustering: A Multi-Objective Approach
Sylvain Lamprier, LIP6 - Université Pierre et Marie Curie, France
Tassadit Amghar, LERIA - Université d'Angers, France
Bernard Levrat, LERIA - Université d'Angers, France
Frédéric Saubion, LERIA - Université d'Angers, France

FRI 2:10 – 3:50   ROOM   300

(SVT-1) Software Verification and Testing
Session Chair: Jan Cederquist, Instituto Superior Técnico,
Portugal

Proving Consistency of VDM models using HOL
Sander D. Vermolen, Delft University of Technology, Netherlands
Jozef Hooman, Radboud University, Netherlands
Peter Gorm Larsen, Engineering College of Aarhus, Denmark

A Machine-Checked Soundness Proof for an Efficient Verification Condition Generator
Frédéric Vogels, Katholieke Universiteit Leuven, Belgium
Bart Jacobs, Katholieke Universiteit Leuven, Belgium
Frank Piessens, Katholieke Universiteit Leuven, Belgium

Formal Analysis of Policy-Based Self-Adaptive Systems
Narges Khakpour, Tarbiat Modares University, Iran
Ramtin khosravi, University of Tehran, Iran
Marjan Sirjani, University of Tehran, Iran
Saeed Jalili, Tarbiat Modares University, Iran

Programming Assistance based on Contracts and Modular Verification in the Automation Domain
Dominik Hurnaus, Johannes Kepler University Linz, Austria
Herbert Prähofer, Johannes Kepler University Linz, Austria

3:50 – 4:20 LEVELS 3 & 4
Coffee Break

FRI 4:20 – 6:00 ROOM 403

(GCR) Geometric Constraints and Reasoning
Session Chair: Dominique Michelucci, Université de Bourgogne, France

Constraint-Based LN-Curves
Young Joon Ahn, Chosun University, Korea
Christoph M. Hoffmann, Purdue University, United States

Polytope-Based Computation of Polynomial Ranges
Christoph Fünfzig, LE2I, Universite de Bourgogne, France
Dominique Michelucci, LE2I, Universite de Bourgogne, France
Sebti Foufou, LE2I, Universite de Bourgogne, France & CSE, Qatar University, Qatar

Haptic Manipulation of Rational Parametric Planar Cubics using Shape Constraints
Christoph Fünfzig, LE2I, Universite de Bourgogne, France
Philippe Thomin, University Lille Nord de France, UVHC, LAMIH, France
Gudrun Albrecht, University Lille Nord de France, UVHC, LAMAV-CGAO, France

Feature-Based 3D Morphing based on Geometrically Constrained Sphere Mapping Optimization
Theodoros Athanasiadis, University of Ioannina, Greece
Ioannis Fudos, University of Ioannina, Greece
Christophoros Nikou, University of Ioannina, Greece
Vasiliki Stamati, University of Ioannina, Greece

FRI 4:20 – 6:00 ROOM 404

(MCA-2) Mobile Computing and Applications
Session Chair: Alvin Chan, The Hong Kong Polytechnic University

Profit-Based On-Demand Broadcast Scheduling of Real-Time Multi-Item Requests
Jingsong Lv, University of Science and Technology of China, China
Victor Lee, City University of Hong Kong, China
Minming Li, City University of Hong Kong, China
Enhong Chen, University of Science and Technology of China, China

On Processing Location based Top-k Queries in the Wireless Broadcasting System
HaRim Jung, Korea University, Korea
ByungKu Cho, Korea University, Korea
Yon Dohn Chung, Korea University, Korea
Ling Liu, Georgia Institute of Technology, United States

Towards In-Network Data Prediction in Wireless Sensor Networks
Tales Benigno Matos, University of Fortaleza, Brazil
Angelo Brayner, University of Fortaleza, Brazil
Jose Everardo Bessa Maia, State University of Ceara, Brazil

FRI 4:20 – 6:00 ROOM 100

(SCS) Self-organizing Complex Systems
Session Chair: Mirko Viroli, Alma Mater Studiorum - Università di Bologna, Italy

SPANDERS, Distributed Spanning Expanders
Shlomi Dolev, Ben-Guruion University, Israel
Nir Tzachar, Ben-Gurion University, Israel

Chemotaxis-Based Sorting of Self-Organizing Heterotypic Agents
Manolya Eyiyurekli, Drexel University, United States
Linge Bai, Drexel University, United States
Peter I. Lelkes, Drexel University, United States
David E. Breen, Drexel University, United States

Gray Networking
Piyush Harsh, University of Florida, United States
Randy Chow, University of Florida, United States
Richard Newman, University of Florida, United States

Estimating Node Similarity from Co-Citation in a Spatial Graph Model
Jeannette Janssen, Dalhousie University, Canada
Pawel Pralat, West Virginia University, United States
Rory Wilson, Dalhousie University, Canada

Infrastructureless Storage in Dynamic Environments
Jose Luis Fernandez-Marquez, IIIA-CSIC, Spain
Josep Lluis Arcos, IIIA-CSIC, Spain
Giovanna D. Marzo Serugendo, Birkbeck College, United Kingdom

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FRI 4:20 – 6:00 ROOM 105

(INFSEC-2) Information Security Research and Applications
Session Chair: Guido Schryen, University of Freiburg, Germany

TokDoc: A Self-Healing Web Application Firewall
Tammo Krueger, Fraunhofer Institute FIRST, Germany
Christian Gehl, Fraunhofer Institute FIRST, Germany
Konrad Rieck, Berlin Institute of Technology, Germany
Pavel Laskov, University of Tübingen, Germany

ADSandbox: Sandboxing JavaScript to Fight Malicious Websites
Andreas Dewald, Laboratory for Dependable Distributed Systems - University of Mannheim, Germany
Thorsten Holz, Technical University of Vienna, Austria
Felix C. Freiling, Laboratory for Dependable Distributed Systems - University of Mannheim, Germany

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CAPTCHA Smuggling: Hijacking Web Browsing Sessions to Create CAPTCHA Farms
Manuel Egele, Technical University of Vienna, Austria
Leyla Bilge, Institute Eurecom, France
Engin Kirda, Institute Eurecom, France
Christopher Kruegel, University of California, Santa Barbara, United States

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FRI 4:20 – 6:00   ROOM 200

(IAR-4) Information Access and Retrieval
Session Chair: Gloria Bordogna, Consiglio Nazionale delle Ricerche, Dalmine (Bg), Italy

Applying Taxonomic Knowledge to Bayesian Belief Network for Personalized Search
Jae-won Lee, Seoul National University, Korea
Han-joon Kim, University of Seoul, Korea
Sang-goo Lee, Seoul National University, Korea

Probabilistic Anti-Spam Filtering with Dimensionality Reduction
Tiago A. Almeida, School of Electrical & Computer Engineering, Univ. of Campinas - UNICAMP, Brazil
Akebo Yamakami, School of Electrical & Computer Engineering, Univ. of Campinas - UNICAMP, Brazil
Jurandy Almeida, Institute of Computing, Univ. of Campinas - UNICAMP, Brazil

Separating the Reputation and the Sociability of Online Community Users
Hyoseop Shin, Konkuk University, Korea
Jeehoon Lee, Konkuk University, Korea
Kyouhyun Hwang, Konkuk University, Korea

An Adaptive Information Extraction System based on Wrapper Induction with POS Tagging
Rinaldo Lima, Centro de Informática, UFPE, Brazil
Bernard Espinasse, Domaine Universitaire de St Jerôme, France
Fred Freitas, Centro de Informática, UFPE, Brazil

WMS- Extracting Multiple Sections Data Records from Search Engine Results Pages
Jer Lang Hong, Monash University, Malaysia
Eu-Gene Siew, Monash University, Malaysia
Simon Egerton, Monash University, Malaysia

FRI 4:20 – 6:00   ROOM 300

(SVT-2) Software Verification and Testing
Session Chair: Jan Cederquist, Instituto Superior Técnico, Portugal

Time and Alternation: An Automata based Framework to Software Model Checking
Abdelaziz Fellah, University of Sharjah, United Arab Emirates

Reachability Analysis of GSPDIs: Theory, Optimization, and Implementation
Hallstein A. Hansen, Buskerud University College, Norway
Gerardo Schneider, University of Gothenburg, Sweden

Checking Concurrent Contracts with Aspects
Eric Kerfoot, Oxford University Computing Laboratory, United Kingdom
Steve McKeever, Oxford University Computing Laboratory, United Kingdom

Design-Level Metrics Estimation based on Code Metrics
Ashkan Sami, Shiraz University, Iran
Seyed Mostafa Fakhrahmad, Shiraz University, Iran

FRIDAY 6:00PM
CONFERENCE ENDS

SAC 2010 POSTERS LIST

WED 9:40 - 12:40   Corridor Level 0

Poster Session I

(AB) Applied Biometrics Track

Constrained Viterbi Decoding for Embedded User-Customised Password Speaker Recognition
Anthony Larcher, University of Avignon - LIA, France
Jean-François Bonastre, University of Avignon - LIA, France
John S.D. Mason, Speech and Image Group, Swansea University, United Kingdom

Mistral: Open Source Biometric Platform
Eric Charton, University of Avignon - LIA, France
Anthony Larcher, University of Avignon - LIA, France
Christophe Levy, University of Avignon - LIA, France
Jean-François Bonastre, University of Avignon - LIA, France

(CIIA) Computational Intelligence and Image Analysis Track

Automatic K-Complex Detection using Hjorth Parameters and Fuzzy Decision
Daria Migotina, IST - Technical University of Lisbon, Portugal
Agostinho Rosa, IST - Technical University of Lisbon, Portugal
Ana Fred, IST - Technical University of Lisbon, Portugal

Image Representation and Classification based on Data Compression
Nuo Zhang, UEC, Japan
Toshinori Watanabe, UEC, Japan

Advanced Motion Detection for Intelligent Video Surveillance Systems
Fan-Chieh Cheng, National Taiwan University of Science and Technology, Taiwan
Shih-Chia Huang, National Taipei University of Technology, Taiwan
Shanq-Jang Ruan, National Taiwan University of Science and Technology, Taiwan

(CSP) Constraint Solving and Programming Track

Local Lemma: A New Strategy of Pruning in SAT Solvers
Xiangxue Jia, Institute of Software, Chinese Academy of Sciences, China
Runming Lu, Institute of Software, Chinese Academy of Sciences, China
Sheng Liu, Institute of Software, Chinese Academy of Sciences, China
Jian Zhang, Institute of Software, Chinese Academy of Sciences, China

Relational Consistency by Constraint Filtering
Shant Karakashian, University of Nebraska-Lincoln, United States
Robert J. Woodward, University of Nebraska-Lincoln, United States
Berthe Y. Choueiry, University of Nebraska-Lincoln, United States
Christian Bessiere, LIRMM, France

(CM) Coordination Models, Languages and Applications Track

Towards the Introduction of QoS Information in a Component Model
Meng Sun, CWI, Netherlands
Luis S. Barbosa, Minho University, Portugal

(DM) Data Mining Track

User-Controlled Generalization Boundaries for P-Sensitive K-Anonymity
Alina Campan, Northern Kentucky University, United States
Traian Marius Truta, Northern Kentucky University, United States
Nicholas Cooper, Northern Kentucky University, United States

Introducing Global Scaling Parameters into Ncut
Yiling Zeng, Institute of Computing Technology, Chinese Academy of Sciences, China
Hongbo Xu, Institute of Computing Technology, Chinese Academy of Sciences, China
Xueqi Cheng, Institute of Computing Technology, Chinese Academy of Sciences, China
Shuo Bai, Chinese Academy of Sciences and Shanghai Stock Exchange, China

Mining Temporal Relationships among Categories
Saket S.R. Mengle, Illinois Institute of Technology, United States
Nazli Goharian, Georgetown University, United States

A Generative Pattern Model for Mining Binary Datasets
Claudio Lucchese, ISTI - CNR, Italy
Salvatore Orlando, UNIVE, Italy
Raffaele Perego, ISTI - CNR, Italy

Canonical Random Correlation Analysis
Jianchun Zhang, Nanjing University of Aeronautics and Astronautics, China
Daoqiang Zhang, Nanjing University of Aeronautics and Astronautics, China

Background Knowledge in Formal Concept Analysis: Constraints via Closure Operators
Radim Belohlavek, SUNY Binghamton, United States and Palacky University Olomouc, Czech Republic
Vilem Vychodil, SUNY Binghamton, United States and Palacky University Olomouc, Czech Republic

Link Prediction using Probabilistic Group Models of Network Structure
Akira Ninagawa, Kobe University, Japan
Koji Eguchi, Kobe University, Japan

(DS) Data Streams Track

Spatiotemporal Sampling for Trajectory Streams
Mohamed K. El Mahrsi, Télécom ParisTech, France
Christine Potier, Télécom ParisTech, France
Georges Hébrail, Télécom ParisTech, France
Fabrice Rossi, Télécom ParisTech, France

Distributed Data Stream Classification for Wireless Sensor Networks
Mohamed Medhat Gaber, Monash University, Australia
Ary Mazharuddin Shiddiqi, Monash University, Australia

(EMBS) Embedded Systems Track

Optimized Java Card Transaction Mechanism based on Object Locality
Dawei Zhang, School of Computer and Information Technology, Beijing Jiaotong University, China
Zhen Han, School of Computer and Information Technology, Beijing Jiaotong University, China
Wei Jin, Research and Development Department, Beijing Watchdata System Company, China

A Hardware Peripheral for Java Bytecodes Translation Acceleration
Isidoros Sideris, National Technical University of Athens, Greece
Nikos Moshopoulos, National Technical University of Athens, Greece
Kiamal Pekmestzi, National Technical University of Athens, Greece

Flash-Aware Record Management Method
Duck-Ho Bae, Hanyang University, Korea
Ji-Woong Chang, Korea Polytechnic University, Korea
Sang-Wook Kim, Hanyang University, Korea

(GCR) Geometric Constraints and Reasoning Track

Blade Geometry Design with Kinematic Ruled Surface Approximation
Yayun Zhou, Siemens AG, CT PP2, Germany
Jörg Schulze, Siemens AG, CT PP2, Germany
Stefan Schäffler, Universität der Bundeswehr, Germany

Similar Triangles and Orientation in Plane Elementary Geometry for Coq-Based Proofs
Tuan Minh Pham, INRIA Sophia Antipolis, France

(HCI) Human Computer Interaction Track

Towards Interactionflows for Smart Products
Marcus Ständer, Technische Universität Darmstadt, Germany

Experiences in Reading Detection with EEG Signals
Inês Oliveira, CICANT, Universidade Lusófona, Portugal
Ovidiu Grigore, LASIGE, Faculty of Sciences, University of Lisbon, Portugal
Nuno M. Guimarães, LASIGE, Faculty of Sciences, University of Lisbon, Portugal
Carlos Duarte, LASIGE, Faculty of Sciences, University of Lisbon, Portugal

A Format to Design Narrative Multimedia Applications for Cultural Heritage Communication
Elisa Rubegni, Università della Svizzera italiana, Switzerland
Nicoletta Di Blas, Politecnico di Milano, Italy
Paolo Paolini, Politecnico di Milano, Italy
Amalia Sabiescu, Università della Svizzera italiana, Switzerland

(IAR) Information Access and Retrieval Track

Using Passage-Based Language Model for Opinion Detection in Blogs
Malik Muhammad Saad Missen, IRIT, France
Mohand Boughanem, IRIT, France
Guillaume Cabanac, IRIT, France

HMNews: A Multimodal News Data Association Framework
Maurizio Montagnuolo, RAI Radiotelevisione Italiana, Italy
Alberto Messina, RAI Centre for Research and Technological Innovation, Italy
Marco Ferri, euriX s.r.l, Italy

OncoViz: A User-Centric Mining and Visualization Tool for Cancer-Related Literature
Zi Ning, East China Normal University, China
Ji Soo Yi, Purdue University, United States
Mathew Palakal, IUPUI, United States
Anna McDaniel, IUPUI, United States

SMaC: A Spatial Map Caching Technique for Mobile Devices
Gerardo Pelosi, Univerità degli Studi di Bergamo, Italy
Giuseppe Psaila, Univerità degli Studi di Bergamo, Italy

(INFSEC) Information Security Research and Applications Track

Nudge: Intermediaries' Role in Interdependent Network Security
Jens Grossklags, Princeton University, United States
Svetlana Radosavac, DOCOMO USA Labs, United States
Alvaro A. Cárdenas, UC Berkeley, United States
John Chuang, UC Berkeley, United States

A Framework for Risk Analysis in Virtual Directory Security
William R. Claycomb, Sandia National Laboratories, United States
Dongwan Shin, Computer Science, New Mexico Tech, United States

(MMV) Multimedia and Visualization Track
NCL-Inspector: Towards Improving NCL Code
Gustavo de Sá Carvalho Honorato, Pontifícia Universidade Católica do Rio de Janeiro, Brazil
Simone Diniz Junqueira Barbosa, Pontifícia Universidade Católica do Rio de Janeiro, Brazil

(OOPS) Object Oriented Programming Languages and Systems Track

Design Pattern Implementation in Object Teams
João L. Gomes, CITI, FCT/UNL, Portugal
Miguel P. Monteiro, CITI, FCT/UNL, Portugal

(OS) Operating Systems Track

ART: Adaptive, Reliable, and Fault-Tolerant Task Management for Computational Grids
Sangho Yi, INRIA, France
Hong Min, Seoul National University, Korea
Bongjae Kim, Seoul National University, Korea
Jung Y. Kim, Utica College, United States
Chang Oan Sung, Indiana University Southeast, United States

Virtual Protocol Stack Interface for Multiple Wireless Sensor Network Simulators
Jinman Jung, Seoul National University, Korea
Yookun Cho, Seoul National University, Korea
Yeongkwun Kim, Western Illinois University, United States
Yoojin Chung, Hankook University of Foreign Studies, Korea
Bongchan Gim, Soongsil University, Korea
Jiyoung Kwak, Electronics Telecommunications Research Institute, Korea

ReSSD: A Software Layer for Resuscitating SSDs from Poor Small Random Write Performance
Youngjae Lee, KAIST, Korea
Jin-Soo Kim, Sungkyunkwan University, Korea
Seungryoul Maeng, KAIST, Korea

(PADO) Power-Aware Design and Optimization Track

Dynamic Optimization of Power and Performance for Virtualized Server Clusters
Vinicius Petrucci, Universidade Federal Fluminense, Brazil
Orlando Loques, Universidade Federal Fluminense, Brazil
Daniel Mossé, University of Pittsburgh, United States

(PL) Programming Languages Track

Efficient Inline Caching without Dynamic Translation
Stefan Brunthaler, Vienna University of Technology, Austria

Aho-Corasick Like Multiple Subtree Matching by Deterministic Pushdown Automata
Tomáš Flouri, Faculty of Electrical Engineering, Czech Technical University, Czech Republic
Bořivoj Melichar, Faculty of Information Technology, Czech Technical University, Czech Republic
Jan Janoušek, Faculty of Information Technology, Czech Technical University, Czech Republic

(ROBOT) Intelligent Robotic Systems Track

A Supervisory Control Approach for Safe Behavior of Service Robot Case Study: FRIEND
Leila Fotoohi, University of Bremen, Germany
Axel Graser, University of Bremen, Germany

(RTS) Real Time Systems Track

Timing Analyzing for Systems with Execution Dependencies between Tasks
Yue Lu, Mälardalen University, Sweden
Thomas Nolte, Mälardalen University, Sweden
Iain Bate, Department of Computer Science University of York, United Kingdom

Christer Norström, Mälardalen University, Sweden

Resource Partitioning for Real-Time Processing on a Multicore Architecture
Tullio Facchinetti, University of Pavia, Italy
Matteo Foppiano, University of Pavia, Italy

(SCS) Self-Organizing Complex Systems Track

RDFSwarms – Selforganized Distributed RDF Triple Store
Marko Harasic, Networked Information Systems, Freie Universität Berlin, Germany
Anne Augustin, Networked Information Systems, Freie Universität Berlin, Germany
Philipp Obermeier, Networked Information Systems, Freie Universität Berlin, Germany
Robert Tolksdorf, Networked Information Systems, Freie Universität Berlin, Germany

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WED 2:40 - 5:40   Corridor Level 0

Poster Session II

(AOMIP) Agent-Oriented Methodologies, Infrastructures and Processes Track

Towards the Modeling Reactive and Proactive Agents by using MAS-ML
Enyo J. Tavares Gonçalves, Federal Institute of Education, Science and Technology from Ceará, Brazil
Mariela I. Cortés, State University of Ceará, Brazil
Gustavo A. Campos, State University of Ceará, Brazil
Gilzamir F. Gomes, State University of Ceará, Brazil
Viviane Torres da Silva, Universidade Federal Fluminense, Brazil

An Approach based Upon OWL-S for Method Fragments Documentation and Selection
Vincent Hilaire, UTBM, France
Nicolas Gaud, SET - UTBM, France
Stéphane Galland, SET - UTBM, France
Abderrafiaa Koukam, SET - UTBM, France

(CC) Cloud Computing

Transparent Security for Cloud
Flavio Lombardi, Sistemi Informativi - Consiglio Nazionale delle Ricerche, Italy
Roberto Di Pietro, UNESCO Chair in Data Privacy - Universitat Rovira i Virgili, Spain

(CF) Computer Forensics Track

Filtering the Shadows from Poorly Illuminated Photos
Carlos A.B. Mello, Federal University of Pernambuco, Brazil

Fast File-Type Identification
Irfan Ahmed, Ajou University, Korea
Kyung-suk Lhee, Ajou University, Korea
Hyunjung Shin, Ajou University, Korea
ManPyo Hong, Ajou University, Korea

(DE) Document Engineering Track

A Novel Framework to Detect Source Code Plagiarism: Now, Students Have to Work for Real!

Boris Lesner, Université de Caen Basse-Normandie, France
Romain Brixtel, Université de Caen Basse-Normandie, France
Cyril Bazin, Université de Caen Basse-Normandie, France
Guillaume Bagan, Université de Caen Basse-Normandie, France

Text Line Detection and Segmentation: Uneven Skew Angles and Hill-and-Dale Writing

Ergina Kavallieratou, University of the Aegean, Greece

A DeWarping Algorithm to Compensate Volume Binding Distortion in Scanned Documents

Rafael D. Lins, Universidade Federal de Pernambuco, Brazil
Daniel M. Oliveira, Universidade Federal de Pernambuco, Brazil
Gabriel Torreão, Universidade Federal de Pernambuco, Brazil
Jian Fan, Hewlett Packard, United States
Marcelo Thielo, Hewlett Packard, Brazil

(EE) Enterprise Engineering Track

On the use of Patterns to Recover Business Processes

Ricardo Pérez-Castillo, Alarcos Research Group, University of Castilla-La Mancha, Spain
Ignacio García-Rodríguez de Guzmán, Alarcos Research Group, University of Castilla-La Mancha, Spain
Mario Piattini, Alarcos Research Group, University of Castilla-La Mancha, Spain

Fact-Oriented Declarative Semantic Enterprise Modeling

Peter Bollen, Maastricht University, Netherlands

Software Tools for Requirements Management in an ERP System Context

Björn Johansson, School of Economics and Management, Lund University, Sweden
Rogerio Atem de Carvalho, CEFET Campos, Brazil

(EC) Applications of Evolutionary Computing Track

Hybrid Evolutionary Quantum Inspired Method to Adjust Time Phase Distortions in Financial Time Series

Ricardo de A. Araújo, [gm]² Intelligent Systems, Brazil
Adriano L.I. de Oliveira, Federal University of Pernambuco, Brazil
Sergio C.B. Soares, Federal University of Pernambuco, Brazil

Multi-Objective Evolutionary Approach for Solving Facility Layout Problem using Local Search

Kazi Shah Nawaz Ripon, Department of Informatics, University of Oslo, Norway
Kyrre Glette, Department of Informatics, University of Oslo, Norway
Mats Høvin, Department of Informatics, University of Oslo, Norway
Jim Tørresen, Department of Informatics, University of Oslo, Norway

(MCA) Mobile Computing and Applications Track

Evaluating the Usability of a Mobile Content Sharing Game

Alton Y.K. Chua, Nanyang Technological University, Singapore
Chei Sian Lee, Nanyang Technological University, Singapore
Dion Hoe-Lian Goh, Nanyang Technological University, Singapore
Keng Tiong Tan, Nanyang Technological University, Singapore
Nguyen Anthony, Nanyang Technological University, Singapore

Mobile Intelligent Interruptions Management (MIIM): A Context Aware Unavailability System

Karl Stamm, Marquette University, United States
Sheikh Iqbal Ahamed, Marquette University, United States
Praveen Madiraju, Marquette University, United States
Sina Zulkernain, Marquette University, United States

Uplink Scheduling Algorithm with Dynamic Polling Management in IEEE 802.16 Broadband Wireless Networks

Marcio A. Teixeira, Federal Institute of Education, Science and Technology of São Paulo, Brazil
Paulo R. Guardieiro, Federal University of Uberlândia, Brazil

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(NETS) Networking Track

Network State Consistency of Virtual Machine in Live Migration

Xingang Liu, School of Computer Science and Engineering, Beihang University, China
Jinpeng Huai, School of Computer Science and Engineering, Beihang University, China
Qin Li, School of Computer Science and Engineering, Beihang University, China
Tianyu Wo, School of Computer Science and Engineering, Beihang University, China

A Network Polling Solution through a P2P-Based Distributed Management Environment

Cristina Melchiors, Federal University of Rio Grande do Sul, Brazil
Alessandro H. dos Santos, Federal University of Rio Grande do Sul, Brazil
Dionatan Mattjie, Federal University of Rio Grande do Sul, Brazil
Carlos R.P. dos Santos, Federal University of Rio Grande do Sul, Brazil
Andre Panisson, Federal University of Rio Grande do Sul, Brazil
Lisandro Z. Granville, Federal University of Rio Grande do Sul, Brazil
Liane M.R. Tarouco, Federal University of Rio Grande do Sul, Brazil

ASTRAL: An Adaptive, Efficient, and Reliable Flooding Mechanism for MANET

Jinman Jung, Seoul National University, Korea
Yookun Cho, Seoul National University, Korea
Yeongkwun Kim, Western Illinois University, United States
Injoo Kim, East-West University, United States

Dual-Level Defense for Networks under DDoS Attacks

Anjali Sardana, Indian Institute of Technology Roorkee, India
Ramesh C. Joshi, Indian Institute of Technology Roorkee, India

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(RE) Requirements Engineering

Using Interaction Requirements to Operationalize Usability
Holger Röder, University of Stuttgart, Germany

Dealing with Transparency Requirements in Information Systems
Adriano Cunha, CPesFN, Brazil
Antonio de Padua Oliveira, UERJ, Brazil
Ricardo Choren, IME/RJ, Brazil

(SE) Software Engineering Track

An Empirical Investigation on the Relation between Analysis Models and Source Code Comprehension
Carmine Gravino, University of Salerno, Italy
Genoveffa Tortora, University of Salerno, Italy
Giuseppe Scanniello, University of Basilicata, Italy

Rationale Visualization of Software Architectural Design Decision using Compendium
Mojtaba Shahin, Sheikh Bahaei University, Iran
Peng Liang, Wuhan University, China
Mohammad Reza Khayyambashi, University of Isfahan, Iran

Assessing the Impact of Refactoring Activities on the JHotDraw Project
Ishwor Thapa, University of Nebraska at Omaha, United States
Harvey Siy, University of Nebraska at Omaha, United States

A Meta Model for Representing Arbitrary Meta Model Hierarchies
Bernhard Volz, University of Bayreuth, Germany

Sub-Clone Refactoring in Open Source Software Artifacts
Robert Tairas, University of Alabama at Birmingham, United States
Jeff Gray, University of Alabama at Birmingham, United States

(SIM) Advances in Computer Simulation Track

Using Surface Effect Measures to Model Parallel Performance
Belgacem Ben Youssef, Simon Fraser University, Canada

A Simulation of Large-Scale Groundwater Flow on CUDA-Enabled GPUs
Xiaohui Ji, China University of Geosciences, China
Tangpei Cheng, China University of Geosciences, China
Qun Wang, China University of Geosciences, China

(SOAP) Service Oriented Architecture and Programming Track

YASA-M: Semantic Web Service Matchmaker
Yassin Chabeb, TELECOM SudParis, France
Samir Tata, TELECOM SudParis, France

Can Domain-Specific Languages be Implemented by Service-Oriented Architecture?
Shih-Hsi Liu, California State University, United States
Adam Cardenas, California State University, United States
Xang Xiong, California State University, United States
Marjan Mernik, University of Maribor, Slovenia
Barrett R. Bryant, University of Alabama at Birmingham, United States
Jeff Gray, University of Alabama at Birmingham, United States

Comparison of Enterprise Service Buses based on Their Support of High Availability
Irina Astrova, Tallinn University of Technology, Estonia
Arne Koschel, University of Applied Sciences and Arts, Germany
Tobias Kruessmann, SD & M, Germany

(SWA) The Semantic Web and its Application Track

Enhancing Semantic Search using Case-Based Modular Ontology
Nesrine Ben Mustapha, Laboratoire RIADI ENSI Campus Universitaire de la Manouba, Tunisia
Hajer Baazaoui Zghal, Laboratoire RIADI ENSI Campus Universitaire de la Manouba, Tunisia
Marie-Aude Aufaure, Ecole Centrale Paris Laboratoire MAS Chaire SAP Business Objects, France
Henda Ben Ghezala, Laboratoire RIADI ENSI Campus Universitaire de la Manouba, Tunisia

The Semantics of Personalised Web Accessibility Assessment
Rui Lopes, University of Lisbon, Portugal
Konstantinos Votis, CERTH/ITI, Greece
Luís Carriço, University of Lisbon, Portugal
Dimitrios Tzovaras, CERTH/ITI, Greece
Spiridon Likothanassis, University of Patras, Greece

ONTOMO: Web-Based Ontology Building System
I. Shin, University of Electro-Communications, Japan
Takahiro Kawamura, University of Electro-Communications, Japan
Hiroyuki Nakagawa, University of Electro-Communications, Japan
Ken Nakayama, University of Electro-Communications, Japan
Yasuyuki Tahara, University of Electro-Communications, Japan
Akihiko Ohsuga, University of Electro-Communications, Japan

A Review of Approaches for Representing RCC8 in OWL
Frederik Hogenboom, Erasmus University Rotterdam, Netherlands
Flavius Frasincar, Erasmus University Rotterdam, Netherlands
Uzay Kaymak, Erasmus University Rotterdam, Netherlands

Inductive Reasoning and Semantic Web Search
Claudia d'Amato, University of Bari, Italy
Floriana Esposito, University of Bari, Italy
Nicola Fanizzi, University of Bari, Italy
Bettina Fazzinga, Università della Calabria, Italy
Georg Gottlob, University of Oxford, United Kingdom
Thomas Lukasiewicz, University of Oxford, United Kingdom

(WT) Web Technologies Track

MOPSI Location-Based Search Engine: Concept, Architecture and Prototype
Pasi Franti, University of Eastern Finland, Finland
Juha Kuittinen, University of Eastern Finland, Finland
Andrei Tabarcea, Technical University of Iaşi, Romania
Lomanzi Sakala, University of Eastern Finland, Finland

Host-IP Clustering Technique for Deep Web Characterization
Denis Shestakov, Helsinki University of Technology, Finland
Tapio Salakoski, University of Turku, Finland

Social Music Making on the Web with CODES
Evandro Miletto, Instituto de Informática - UFRGS, Brazil
Marcelo Pimenta, Instituto de Informática - UFRGS, Brazil
Jean-Paul Sansonnet, LIMSI-CNRS, France
François Bouchet, LIMSI-CNRS, France

(WSNS) Wireless Sensor Network Systems and Applications Track

Towards Lightweight Self-Configuration in Wireless Sensor Networks
Benjamin Satzger, University of Augsburg, Germany
Faruk Bagci, University of Augsburg, Germany
Florian Kluge, University of Augsburg, Germany
Theo Ungerer, University of Augsburg, Germany

Towards Fine-Grained and Application-Centric Access Control for Wireless Sensor Networks
Nelson Matthys, K.U. Leuven, Belgium
Rehan Afzal, K.U. Leuven, Belgium
Christophe Huygens, K.U. Leuven, Belgium
Sam Michiels, K.U. Leuven, Belgium
Wouter Joosen, K.U. Leuven, Belgium
Danny Hughes, Xi'an Jiaotong-Liverpool University, China

Mobile Air Pollution Monitoring Network
W. Hedgecock, Vanderbilt University - ISIS, United States
P. Volgyesi, Vanderbilt University - ISIS, United States
A. Ledeczi, Vanderbilt University - ISIS, United States
X. Koutsoukos, Vanderbilt University - ISIS, United States
A. Aldroubi, Vanderbilt University - ISIS, United States
A. Szalay, Johns Hopkins University, United States
A. Terzis, Johns Hopkins University, United States

SAC 2011 INVITATION

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