

APPLIED COMPUTING 2012

The 27th Annual ACM Symposium on Applied Computing

FINAL PROGRAM

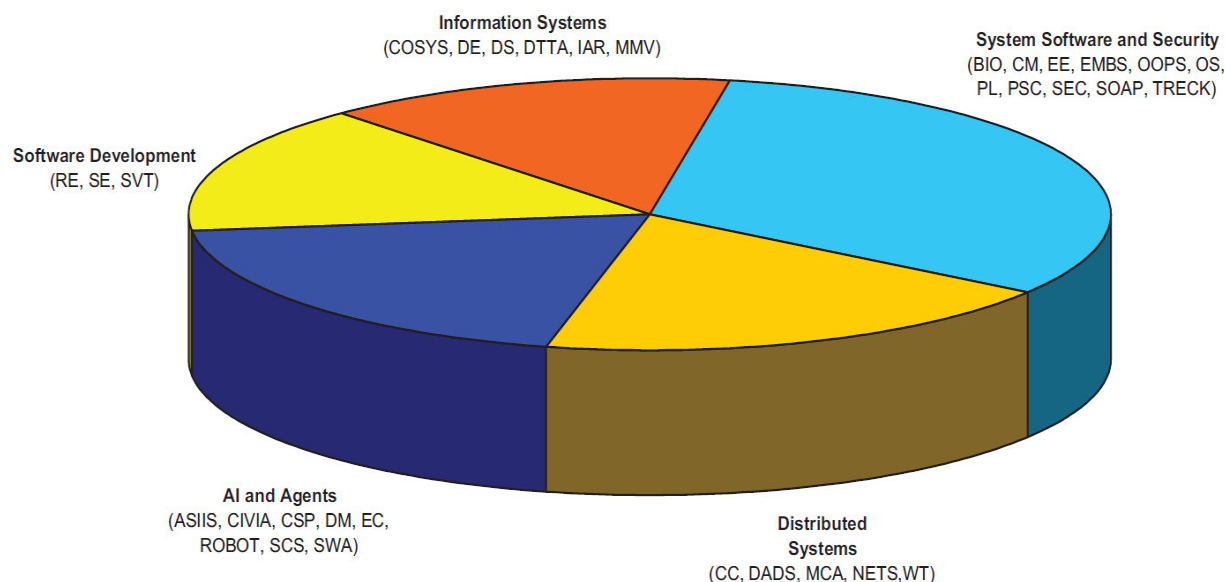
Riva Del Garda, Trento, Italy

March 26-30, 2012

Organizing Committee

Sascha Ossowski
Paola Lecca
Chih-Cheng Hung
Jiman Hong
Dongwan Shin

Mathew J. Palakal
Dan Tulpan
Mirtis Conci
Hisham M. Haddad



Hosted by
The Microsoft Research – University of Trento
Centre for Computational and Systems Biology

SAC 2012

Introduction

SAC 2012 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 2012 features two keynote speakers on Tuesday and Thursday, from 9:00 to 10:40. The technical program of the symposium consists of 34 tracks on different research topics, which run from Tuesday March 27 through Friday March 30, 2012. Regular oral presentation sessions start at 9:00 and end at 18:00 in five parallel sessions. In addition, two poster sessions run on Thursday March 29, from 10:40 to 12:50 and from 15:50 to 18:00. The tutorials program is scheduled for Monday March 26, from 9:00 to 18:00.

Organizing Committee

Sascha Ossowski, *Symposium Chair, Steering Committee Member*,

University of Rey Juan Carlos, Spain

Paola Lecca, *Symposium Vice-Chair*

The Microsoft Research-University of Trento
COSBI, Italy

Chih-Cheng Hung, *Program Co-Chairs*

Southern Polytechnic State University, USA

Jiman Hong, *Program Co-Chairs*

Soongsil University, Korea

Mathew J. Palakal, *Poster Program Chair*

Indiana University Purdue University, USA

Dongwan Shin, *Publication Chair*

(*Proceedings Editor*)

New Mexico Institute of Mining and Technology,
USA

Dan Tulpan, *Tutorials Chair*

Institute for Information Technology, National
Research Council, Canada

Mirtis Conci, *Local Chair*

The Microsoft Research-University of Trento
COSBI, Italy

Hisham M. Haddad, *Treasurer, Webmaster,
Steering Committee Member*

Kennesaw State University, USA

Barrett R. Bryant, *Steering Committee Member*

University of North Texas, USA

Sung Shin, *Steering Committee Member*

South Dakota State University, USA
Roger L. Wainwright, *Steering Committee Member*
University of Tulsa, USA

Track Chairs

**Volume I: Artificial Intelligence & Agents,
Distributed Systems, and Information Systems
Track Chairs**

**Advances in Spatial and Image-based Information
Systems (ASIIS)**

Richard Chbeir, University of Bourgogne, France
Christophe Claramunt, Ecole Navale, Brest, France
Ki-Joune Li, Pusan National University, Korea
Kokou Yetongnon, University of Bourgogne, France

Cloud Computing (CC)

Umesh Bellur, Indian Institute of Technology,
Bombay, India

Rajiv Ramnath, Ohio State University, USA

S D Madhu Kumar, National Institute of Technology
Calicut, India

**Computational Intelligence and Video & Image
Analysis (CIVIA)**

Agostinho Rosa, Technical University of Lisbon,
Portugal

Yin-Fu Huang, National Yunlin University of
Science and Technology, Taiwan

**Cooperative Systems in Heterogeneous
Environments (COSYS)**

Rachid Anane, Coventry University, United
Kingdom

David Parker, Oxford University, United Kingdom

Constraint Solving and Programming (CSP)

Stefano Bistarelli, Università di Perugia, Italy and
IIT-CNR, Pisa, Italy

Eric Monfroy, UTFSM, Valparaiso, Chile and LINA,
Nantes, France, Chile

Barry O'Sullivan, University College Cork, Ireland
Oxford University, United Kingdom

**Dependable and Adaptive Distributed Systems
(DADS)**

Karl M. Goechka, Vienna University of Technology,
Austria

Svein Hallsteinsen, Sintef, Norway

Rui Oliveira, Universidade do Minho, Portugal
Alexander Romanovsky, University of Newcastle,
United Kingdom

Database Theory, Technology and Applications (DTTA)

Junping Sun, Nova Southeastern University, United States
Ramzi A. Haraty, Lebanese American University, Lebanon
Apostolos Papadopoulos, Aristotle University, Greece

Document Engineering (DE)

Rafael Lins, Universidade Federal de Pernambuco, Brazil

Data Mining (DM)

Hasan Jamil, Wayne State University, United States
Raymond Wong, University of New South Wales, Australia

Data Streams (DS)

Pedro Rodrigues, University Porto, Portugal
Albert Bifet, University Porto, Portugal
Shonali Krishnaswamy, Monash University, Australia
João Gama, LIAAD-University Porto, Portugal

Evolutionary Computing (EC)

Federico Divina, Pablo de Olavide University, Spain
Raúl Giráldez Rojo, Pablo de Olavide University, Spain

Information Access and Retrieval (IAR)

Gloria Bordogna, CNR, Italy
Gabriella Pasi, Univ. Milano Bicocca, 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

Multimedia and Visualization (MMV)

Maria da Graça C. Pimentel, Universidade de São Paulo, Brazil
Ethan V. Munson, University of Wisconsin-Milwaukee, United States
Takayuki Itoh, Ochanomizu University, Japan

Networking (NETS)

Mario Freire, University of Beira Interior, Portugal

Marília Curado, University of Coimbra, Portugal
Manuela Pereira, University of Beira Interior, Portugal
Teresa Vazão, IST/INESC ID Lisboa, Portugal

Intelligent Robotic Systems (ROBOT)

Denis Wolf, University of Sao Paulo, Brazil
Fernando S. Osorio, University of Sao Paulo, Brazil
Luiz Chaimowicz, Federal University of Minas Gerais, Brazil

Self-organizing Complex Systems (SCS)

Alberto Rosi, University of Modena and Reggio Emilia, Italy
Graeme Stevenson, University of St Andrews, United Kingdom

The Semantic Web and Its Applications (SWA)

Hyoil Han, Marshall University, United States

Web Technologies (WT)

Davide Rossi, University of Bologna, Italy
Angelo Di Iorio, University of Bologna, Italy
Stefano Zacchiroli, Université Paris Diderot - Paris 7, France

Volume II: Volume II: Software Development and System Software & Security Track Chairs

Bioinformatics (BIO)

Dan Tulpan, National Research Council, Institute for Information Tech, Canada
Paola Lecca, The Microsoft Research - University of Trento, COSBI, Italy
Ferenc Jordan, The Microsoft Research - University of Trento, COSBI, Italy

Coordination Models, Languages and Applications (CM)

Mirko Viroli, Alma Mater Studiorum, Università di Bologna, Italy
Gabriella Castelli, Università di Modena e Reggio Emilia, Italy
Jose Luis Fernandez Marquez, Université de Genève, Switzerland

Enterprise Engineering (EE)

Artur Caetano, IST, Technical University of Lisbon, Portugal
Rogério Carvalho, IFF, Brazil

Maria-Eugenia Iacob, University of Twente, Netherlands

Rafael Accorsi, Freiburg University, Germany

Embedded Systems (EMBS)

Alessio Bechini, University of Pisa, Italy

Cosimo Antonio Prete, University of Pisa, Italy

Object Oriented Programming Languages and Systems (OOPS)

Davide Ancona, Univ. of Genova, Italy

Shigeru Chiba, Tokyo Institute of Technology, Japan

Atsushi Igarashi, Kyoto University, Japan

Andy Kellens, Vrije Universiteit Brussel, Belgium

Operating Systems (OS)

Tei-Wei Kuo, National Taiwan University, Taiwan

Junyoung Heo, Hansung University, Korea

Programming Languages (PL)

Marjan Mernik, University of Maribor, Slovenia

Barrett Bryant, University of North Texas, 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

Requirement Engineering (RE)

Maria Lencastre, Universidade de Pernambuco, Brazil

Software Engineering (SE)

W. Eric Wong, UT-Dallas, USA

Chang Oan Sung, Indiana University Southeast, USA

John Kim, Utica College, USA

Computer Security (SEC)

Giampaolo Bella, Università di Catania, Italy

Helge Janicke, De Montfort University, United Kingdom

Alessandro Sorniotti, IBM Research Zurich, Switzerland

Service Oriented Architectures and Programming (SOAP)

Ivan Lanese, Università di Bologna, Italy

Manuel Mazzara, University of Newcastle, United Kingdom

Fabrizio Montesi, ItalianaSoftware, Italy

Software Verification and Testing (SVT)

Jun Pang, University of Luxembourg, Luxembourg

Mohammad Reza Mousavi, Eindhoven University of Technology, The Netherlands

Trust, Reputation, Evidence and other Collaboration Know-How (TRECK)

Jean-Marc Seigneur, University of Geneva, Switzerland

Support

Local support for SAC 2012 is provided by The Microsoft Research – University of Trento, Centre for Computational and Systems Biology. Additional support was provided by Provincia Autonoma Di Trento, Riva Del Garda Congressi, Comune Di Riva Del Garda, Istituto d'Istruzione G. Floriani, Open Viaggi Vacanze, and Banca di Trento e Bolzano/Bank für Trient und Bozen. The organizing committee acknowledges and thanks the local supporters for their generous contributions to SAC 2012. Their support has been essential to the success of SAC 2012, and it is greatly appreciated.



PROVINCIA AUTONOMA
DI TRENTO



Riva del Garda
Congressi



Open Viaggi Vacanze
Lufthansa
City Center dal 1978



COMUNE DI RIVA DEL
GARDA



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E BOLZANO



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UND BOZEN

ACM SIGAPP

The ACM Special Interest Group 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>.

Symposium Chairs Message

Sascha Ossowski

University of Rey Juan Carlos, Spain

Paola Lecca

*The Microsoft Research - University of Trento COSBI,
Italy*

On behalf of the Organizing Committee, we welcome you to the 27th Annual ACM Symposium on Applied Computing (SAC 2012), hosted by The Microsoft Research – University of Trento Centre for Computational and Systems Biology (COSBI). Over more than 20 years this international forum has been dedicated to computer scientists, engineers and practitioners for the purpose of presenting their findings and research results in the broad area of computer applications. The organizing committee is grateful for your participation in this exciting international event. We hope that the 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.

In line with this mission, the conference focuses on scientific and engineering work applied to realworld

problems. It provides an avenue to discuss and exchange new ideas in the wide spectrum of application areas. We all recognize the importance of sharing experiences and research results about the current applicative domains of computer science and information technology. In its current research areas, COSBI shares the aims of the symposium. The centre has been proud to provide its expertise in supporting the multidisciplinary imprint of the event, since this approach is the basis to cope with new challenges and creating new solutions.

SAC 2012 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 SAC 2012 a high quality conference. We also thank our invited keynote speakers, Prof. Anthony Finkelstein, University College London, United Kingdom, and Prof. Letizia Tanca, Politecnico di Milano, Italy, 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 at Riva del Garda, Italy, this year. The Local Organizing Committee has been a central contributor to the success of the SAC 2012 conference. Our gratitude goes to the Local Arrangements Chair, Dr. Mirtis Conci, to the Human Resources and Operations Manager at COSBI, Dr. Elisabetta Nones, to the Finance Manager at COSBI, Dr. Monica Loss, and to COSBI President and CEO, Prof. Corrado Priami. A very special “thank you” goes to our Program Chairs, Dr. Chih-Cheng Hung, Southern Polytechnic State University, Marietta, Georgia, and Dr. Jiman Hong, Soongsil University, Seoul, Korea, for coordinating and bringing together an excellent Technical Program. We would like to 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. Mathew J. Palakal, Indiana University Purdue University, Indianapolis, Indiana, for his hard work to make a successful Poster Program, and Tutorials Chair Dr. Dan Tulpan, National Research Council of Canada, for arranging an exciting set of Tutorials.

Again, we welcome you to SAC 2012 and to the beautiful city of Riva del Garda. We hope you enjoy the SAC 2012 conference and your stay in Italy. Next year, we invite you to participate in SAC 2013 to be held in Coimbra, Portugal. The conference will be hosted by the Institute of Engineering of the Polytechnic Institute of Coimbra (ISEC-IPC).

Program Chairs Message

Chih-Cheng Hung

Southern Polytechnic State University, Marietta, USA

Jiman Hong

Soongsil University, Seoul, Korea

Welcome to the 27th International Symposium on Applied Computing (SAC 2012). For the past 26 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 eight 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 2012.

The open Call for Track Proposals and after prescreening the proposals, 34 Tracks were finally accepted for SAC 2012. 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 1056 final paper submissions from 61 different countries. The submitted papers underwent the blind review process and 270 papers were finally accepted as full papers for inclusion in the Conference Proceedings and presentation during the Symposium. The final acceptance rate for SAC 2012 is 25.6% for the overall track. In addition to the accepted full papers, 76 papers that received high enough review scores were accepted as short papers for the Poster program.

The Technical Program Organization of SAC 2012 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 Track Chairs for making SAC 2012 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 in organizing various tracks into five 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 2012 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 great 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 Dr. Paola Lecca and Dr. Mirtis Conci from University of Trento, Italy.

We wish you all a pleasant stay in Riva del Garda (Trento), hope you have a great time at SAC 2012, 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 28th International Symposium on Applied Computing (SAC 2013) will be held in Coimbra, Portugal. We hope to see you all and your colleagues at SAC 2013.

SAC 2012 Themes

This year SAC tracks are divided into five themes: related themes 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 8 for details. The five themes of SAC 2012 are listed below:

(AIA) AI and Agents: Tracks: ASIIS, CIVIA, CSP, DM, EC, ROBOT, SCS, SWA

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

(IS) Information Systems: Tracks: COSYS, DE, DS, DTTA, IAR, MMV

(SD) Software Development: Tracks: SE, SVT,RE

(SSS) System Software and Security: Tracks: BIO, CM, EE, EMBS, OOPS, OS, PL, PSC, SEC, SOAP, TRECK

Keynote Speakers

Tuesday March 27, 2012

9:00 - 10:40AM

Dr. Letizia Tanca

**Dipartimento di Elettronica e Informazione,
Politecnico di Milano, Piazza Leonardo Da Vinci 32,
20133 Milano, ITALY**

Context-aware System Design: A Data-Oriented Perspective

Abstract

As more data, and the knowledge deriving from it, become available to a growing multitude of people, the ways to access it become more diverse because they must be adapted, on one front, to the kind of data, and on the other front to the prospective users. In particular, the availability of very small, cheap, and low power devices coupled with the advances in wireless networking have made it possible to relieve people of a cumbersome interaction with passive tools, by embedding the processing power in the environment and making it proactive with respect to the user (i.e. anticipating, in an autonomous way, the user's needs). Therefore on the first front above we see independent, heterogeneous, distributed, sometimes transient and mobile devices produce an enormous amount of information and services that should be made available in a seamless and comprehensible fashion; on the second front, along with the user characteristics, as both the users and the devices can be mobile, data and service management functionalities must take into account time, location and physical environment parameters, to provide users and applications with the knowledge and services that are most appropriate to their current context.

After briefly describing the most recent advances on context-awareness and personalization, discussing historical views on context and context-awareness and illustrating fundamental principles which, already introduced in Artificial Intelligence some time ago, are made applicable and interesting by the possibilities of current technologies, in this talk I propose a foundational framework for the lifecycle of context-aware systems, where the system design and management activities consider context as an orthogonal, first-class citizen.

I report the work of the PEDiGREE group (PErvasiveDatabaseGRoup of EnginEers) at Politecnico di Milano and concentrate on Information Management, where context-aware systems are mainly devoted to determining which information is relevant with respect to the ambient conditions. A short account of the research of the PEDiGREE group on personalization can be found in the paper: "Context Modeling and Context Awareness: steps forward in the Context-ADDICT project", co-authored with C. Bolchini, G. Orsi, E. Quintarelli and F. A. Schreiber and published in the IEEE Data Engineering Bulletin 34(2) of 2011.

Speaker's Bio

Dr. Letizia Tanca is a full professor at the Dipartimento di Elettronica e Informazione of Politecnico di Milano, where she has chaired the degree and master courses in Computer Science and Engineering at the Leonardo campus from 2000 to 2006, and currently chairs the Computer Science and Engineering Section of her department. She has taught and teaches courses on Databases, the Foundations of Computer Science, and Information Systems Technologies. She is author of about 150 papers on databases and database theory, published in international journals and conferences, and of the book "Logic Programming and Databases". Recently she co-edited the book "Semantic Web Information Management" for Springer Verlag. Letizia Tanca's research interests have ranged over all database theory, especially on deductive, active and object oriented databases, graph-based languages for databases, the semantics of advanced database and information systems, representation and querying of semi-structured information. Her recent research interests concern context-aware database design and data management for mobile and pervasive systems. She has taken part, often as the local leader, in several national and international projects: particularly relevant w.r.t. her recent research interests are the ERC Project SMS-com (Self-Managing, Situation-aware Computation), the IT project Odyssey, and the Italian projects MAIS, ESTEEM, ART-DECO, SENSORI and Green Move. Letizia Tanca acts regularly as a referee of top international journals of her research area, and is systematically involved in the program committees of international conferences, has been a guest co-editor of the spring 2010 number of the TPLP journal (Theory and Practice of Logic Programming) and is currently co-editing a special number of the Information Systems journal. On the research on context-awareness and personalization, Letizia has been recurrently invited as a guest speaker in international conferences and workshops. She has been her department's representative in, and a Board member of, the Informatics Europe Association (<http://www.informatics-europe.org/>) from its foundation to the end of 2011. She has been the conference Chair of the European Computer science Summit, 2011 (<http://www.ecss2011.polimi.it/>).

Thursday March 29, 2012 9:00 - 10:40AM

**Dr. Anthony Finkelstein
University College London, Department of
Computer Science, Gower Street, London WC1E
6BT, UK**

Advice to a Friend

Abstract

It is the duty of an engineer to sound a warning when we see somebody blithely undertaking a highly complex, large-scale project disregarding the most obvious steps which are necessary to assure success or, at any rate, avoid costly failures. In this case it is the biomedical and life sciences which are being called to attention. The scientific programme they have embarked on is to computationally model the human physiome from genes to physiological processes, by way of cells, metabolic and organ systems. This programme is scientifically an immensely challenging one. It is not however the towering scale of the science challenge that concerns me but rather the absence of an engineering perspective. If I am to characterise existing efforts in this space they could best be described as 'hacking': low-level, ad-hoc and impossible to build on. I am 'up' for the challenge and do not suggest that it is (from an engineering standpoint, I cannot speak for the science) beyond achievability. What I ask is that we build the proper engineering foundations first. I invite the biomedical and life sciences communities to attend to these engineering foundations or risk the larger scientific programme going awry.

Speaker's Bio

Dr. Anthony Finkelstein is Professor of Software Systems Engineering at University College London (UCL) where he works in the broad field of software systems engineering. He is a Visiting Professor at Imperial College and at the National Institute for Informatics, Tokyo, Japan. At UCL he is Dean of UCL Engineering. He has published more than 230 scientific papers and secured more than £22m of research funding. He is a Fellow of both the Institution of Engineering and Technology and the British Computer Society. He has served on numerous editorial boards including that of ACM TOSEM and IEEE TSE, and was founder editor of Automated Software Engineering. He has also chaired numerous international meetings and was a General Chair of the International Conference on Software Engineering. He serves on the UK Research Excellence Framework panel for Computer Science and Informatics and was a member of the Committee of Visitors for the US National Science Foundation. He has provided consultancy advice to a very large number of high profile companies. He was Founder of Systemwire Ltd., a UCL spinout acquired by trade sale and is a Director and consultant Chief Scientist of Message Automation Ltd. He is also a Founder Director of satalia, a UCL spinout.

Other Activities

SIGAPP Annual Business Meeting: Tuesday March 27, from 18:00 to 19:00 in SALA 300A. Open to everyone.

SAC Reception: Tuesday March 27, from 19:30 to 21:30 in Astoria Hotel. Open for all registered attendees.

SAC General Luncheon: Tuesday to Friday (March 27 – 30), from 12:50 to 2:10. Lunch area: PALA MEETING. Open for all registered attendees.

Future SAC Organization Meeting: Wednesday March 28, from 18:00 to 19:00 in SALA 300A. Open for SAC Organizing Committee members.

Welcome Cocktail at La Rocca sponsored by Comune di Riva del Garda on Wednesday 28 at 7.30 pm, open for all attendees.

Track Chairs Business Meeting: Thursday March 29, from 18:00 to 19:00 in Room BELVEDERE. Open for SAC Organizing Committee members and Track Chairs.

SAC Banquet: Thursday March 29. Departure at 19:30 from conference venue. Open for Banquet Ticket holders. See your tickets for full details.

SAC Best Papers/Poster Award: Thursday March 29. During the Banquet, the Program Chairs and Poster Chair will award one best paper for each theme and one best poster of this conference.

Tuesday March 27, 2012

Tue 9:00 – 10:40 Sala 1000 Keynote Address

Context-aware System Design: A Data-Oriented Perspective

Dr. Letizia Tanca

Dipartimento di Elettronica e Informazione,
Politecnico di Milano, Piazza Leonardo Da Vinci
32, 20133 Milano, ITALY

See details on Page 5.

10:40 – 11:10 Pala Meeting Coffee Break

Tue 11:10 – 12:50 Sala Stampa

(DM-1) Data Mining

Session Chair: Stefan Kramer, Johannes Gutenberg-University
Mainz, Germany

**Towards an Automatic Construction of Contextual
Attribute-Value Taxonomies**

Dino Ienco, IRSTEA, LIRMM, Montpellier, France
Yoann Pitarch, Aalborg University, France
Pascal Poncelet, LIRMM, France
Maguelonne Teisseire, IRSTEA, LIRMM, Montpellier, France

**A Constraint-based Language for Declarative
Pattern Discovery**

Jean-Philippe Métivier, Greyc (CNRS 6072) - University of Caen,
France
Patrice Boizumault, Greyc (CNRS 6072) - University of Caen,
France
Bruno Crémilleux, Greyc (CNRS 6072) - University of Caen,
France
Mehdi Khiari, Greyc (CNRS 6072) - University of Caen, France
Samir Loudni, Greyc (CNRS 6072) - University of Caen, France

**A Study of Top-K Measures for Discrimination
Discovery**

Dino Pedreschi, University of Pisa, Italy
Salvatore Ruggieri, University of Pisa, Italy
Franco Turini, University of Pisa, Italy

**A Model for Mining Relevant and Non-Redundant
Information**

Laura Langohr, University of Helsinki, Finland
Hannu Toivonen, University of Helsinki, Finland

**Discovering Missing Links in Networks using Vertex
Similarity Measures**

Hung-Hsuan Chen, The Pennsylvania State University, United
States
Liang Gou, The Pennsylvania State University, United States
Xiaolong Zhang, The Pennsylvania State University, United
States
C. Lee Giles, The Pennsylvania State University, United States

Tue 11:10 – 12:50 Sala 300A

(CC-1) Cloud Computing

Session Chair: Carlos Ballester, University of Geneva,
Switzerland

**BGP-Inspired Autonomic Service Routing for the
Cloud**

Wassim Itani, American University of Beirut, Lebanon
Cesar Ghali, American University of Beirut, Lebanon
Ramzi Bassil, American University of Beirut, Lebanon
Ayman Kayssi, American University of Beirut, Lebanon
Ali Chehab, American University of Beirut, Lebanon

Design and Implementation of a P2P Cloud System

Ozalp Babaoglu, Università di Bologna, Italy
Moreno Marzolla, Università di Bologna, Italy

Michele Tamburini, Università di Bologna, Italy

**Designing Data Storage Tier using Integer
Programming**

Michael O'Sullivan, The University of Auckland, New Zealand
Cameron Walker, The University of Auckland, New Zealand
DongJin Lee, The University of Auckland, New Zealand

**Private Data Deduplication Protocols in Cloud
Storage**

Wee Keong Ng, NTU, Singapore
Yonggang Wen, NTU, Singapore
Huafei Zhu, NTU, Singapore

**A Policy-Based Decentralized Authorization
Management Framework for Cloud Computing**

Dongwan Shin, New Mexico Tech, United States
Ying Wang, New Mexico Tech, United States
William Claycomb, Carnegie Mellon University, United States

Tue 11:10 – 12:50 Sala Belvedere

(OS-1) Operating Systems

Session Chair: Yashu Chen, National Taiwan University of Science
and Technology, Taiwan

**Operating System Support for Dynamic Over-
Provisioning of Solid State Drives**

Nikolaus Jeremic, University of Rostock, Germany
Gero Mühl, University of Rostock, Germany
Anselm Busse, Berlin University of Technology, Germany
Jan Richling, Berlin University of Technology, Germany

**HW Resource Componentizing for Smooth Migration
from Single-Function ECU to Multi-Function ECU**

Jong-Chan Kim, Seoul National University, Republic Of Korea
Kyoung-Soo We, Seoul National University, Republic of Korea
Chang-Gun Lee, Seoul National University, Republic of Korea
Kwei-Jay Lin, University of California, Irvine, United States
Yun Sang Lee, Hyundai-Kia Motors Co., Ltd., Republic of Korea

DADS: Dynamic and Automatic Disk Scheduling

Pilar González-Férez, Universidad de Murcia, Spain
Juan Piernas, Universidad de Murcia, Spain
Toni Cortes, Universitat Politècnica de Catalunya and Barcelona
Supercomputing Center, Spain

**Implementing Distributable Real-Time Threads in
the Linux Kernel : Programming Interface and
Scheduling Support**

Sherif F. Fahmy, Virginia Tech, United States
Binoy Ravindran, Virginia Tech, United States
E.D. Jensen, Time-Critical Technologies, United States

Tue 11:10 – 12:50 Sala 300B

(RE-1) Requirements Engineering

Session Chair: John Mylopoulos, University of Toronto, Canada

**A Clustering-Based Approach for Discovering Flaws
in Requirements Specifications**

Alessio Ferrari, ISTI-CNR, Italy
Stefania Gnesi, ISTI-CNR, Italy

Gabriele Tolomei, ISTI-CNR, Italy

Monitoring Strategic Goals in Data Warehouses with Awareness Requirements

Vitor E. Silva Souza, University of Trento, Italy
Jose-Norberto Mazón, University of Alicante, Spain
Irene Garrigós, University of Alicante, Spain
Juan Trujillo, University of Alicante, Spain
John Mylopoulos, University of Trento, Italy

Extending SysML to Explore Non Functional Requirements: The Case of Information System Design

Anargyros Tsadimas, Harokopio University of Athens, Greece
Mara Nikolaidou, Harokopio University of Athens, Greece
Dimosthenis Anagnostopoulos, Harokopio University of Athens, Greece

A Systematic Mapping Study on Creativity in Requirements Engineering

João Lemos, Federal University of Pernambuco (UFPE), Brazil
Carina Alves, Federal University of Pernambuco (UFPE), Brazil
Leticia Duboc, University College London, United Kingdom
Genaina Nunes Rodrigues, University of Brasília, Brazil

Tue 11:10 – 12:50 Sala 100

(PL-1) Programming Languages

Session Chair: Barrett Bryant, University of North Texas, USA

BNF WAS HERE: What Have We Done about the Unnecessary Diversity of Notation for Syntactic Definitions

Vadim Zaytsev, Centrum Wiskunde en Informatica, Netherlands

On Computing with Types

Paul Tarau, University of North Texas, United States
David Haraburda, University of North Texas, United States

Regular Corecursion in Prolog

Davide Ancona, University of Genova, Italy

An Imperative Language of Self-Modifying Graphs for Biological Systems

Corrado Priami, COSBI and University of Trento, Italy
Paola Quaglia, University of Trento, Italy
Roberto Zunino, COSBI and University of Trento, Italy

Model-Driven Development with eUML-ARC

Kevin Marth, Illinois Institute of Technology, United States
Shangping Ren, Illinois Institute of Technology, United States

12:50 – 2:10 Pala Meeting

Lunch Break

TUE 2:10 – 3:50 SALA STAMPA

(DM-2) Data Mining

Session Chair: Carson Kai-Sang Leung, University of Manitoba, Canada

Semi-Supervised Document Clustering with Dual Supervision through Seeding

Yeming Hu, Dalhousie University, Canada
Evangelos E. Milios, Dalhousie University, Canada
James Blustein, Dalhousie University, Canada

Mining Usage Patterns from a Repository of Scientific Workflows

Claudia Diamantini, Università Politecnica delle Marche, Italy
Domenico Potena, Università Politecnica delle Marche, Italy
Emanuele Storti, Università Politecnica delle Marche, Italy

Hidden Markov Model-Based Time Series Prediction using Motifs for Detecting Inter-Time-Serial Correlations

Tim Schlüter, Heinrich Heine University, Germany
Stefan Conrad, Heinrich Heine University, Germany

Maximum Common Subgraph based Locally Weighted Regression

Madeleine Seeland, Technische Universität München, Germany
Fabian Buchwald, Technische Universität München, Germany
Stefan Kramer, Johannes Gutenberg-Universität Mainz, Germany
Bernhard Pfahringer, The University of Waikato, New Zealand

Context-Aware Role Mining for Mobile Service Recommendation

Jian Wang, Wuhan University, China
Cheng Zeng, Wuhan University, China
Chuan He, Wuhan University, China
Liang Hong, Wuhan University, China
Liang Zhou, Wuhan University, China
Raymond K. Wong, University of New South Wales, Australia
Jilei Tian, Nokia Research Center, Finland

TUE 2:10 – 3:50 SALA 300A

(CC-2) Cloud Computing

Session Chair: Carlos Ballester, University of Geneva, Switzerland

Context-Oriented Programming for Customizable SaaS Applications

Eddy Truyen, IBBT-DistriNet, K.U.Leuven, Belgium
Nicolás Cardozo, SOFT, Vrije Universiteit Brussel, Belgium
Stefan Walraven, IBBT-DistriNet, K.U.Leuven, Belgium
Jorge Vallejos, SOFT, Vrije Universiteit Brussel, Belgium
Engineer Bainomugisha, SOFT, Vrije Universiteit Brussel, Belgium
Sebastian Günther, SOFT, Vrije Universiteit Brussel, Belgium
Theo D'Hondt, SOFT, Vrije Universiteit Brussel, Belgium
Wouter Joosen, IBBT-DistriNet, K.U.Leuven, Belgium

CloudScale – A Novel Middleware for Building Transparently Scaling Cloud Applications

Philipp Leitner, Vienna University of Technology, Austria
Benjamin Satzger, Vienna University of Technology, Austria
Waldemar Hummer, Vienna University of Technology, Austria
Christian Inzinger, Vienna University of Technology, Austria
Schahram Dustdar, Vienna University of Technology, Austria

Entity Matching for Semistructured Data in the Cloud

Marcus Paradies, Ilmenau University of Technology, Germany
Susan Malaika, IBM, United States
Jérôme Siméon, IBM, United States

Shahan Khatchadourian, University of Toronto, Canada
Kai-Uwe Sattler, Ilmenau University of Technology, Germany

Towards Building Large-Scale Distributed Systems for Twitter Sentiment Analysis

Vinh Ngoc Khuc, The Ohio State University, United States
Chaitanya Shivade, The Ohio State University, United States
Rajiv Ramnath, The Ohio State University, United States
Jay Ramanathan, The Ohio State University, United States

Feasibility of a Privacy Preserving Collaborative Filtering Scheme on the Google App Engine – A Performance Case Study

Anirban Basu, Tokai University, Japan
Jaideep Vaidya, Rutgers University, United States
Theo Dimitrakos, British Telecom, United Kingdom
Hiroaki Kikuchi, Tokai University, Japan

TUE 2:10 – 3:50 SALA BELVEDERE

(OS-2) Operating Systems

Session Chair: Chin-Hsien Wu, National Taiwan University of Science and Technology, Taiwan

An Implementation Study of a Ghost Drive: Hidden File Store in a Filesystem

Eungyu Lee, Soongsil University, Republic Of Korea
Joonwoo Lee, Soongsil University, Republic of Korea
Hyeongseok Kang, Soongsil University, Republic of Korea
Kanghee Kim, Soongsil University, Republic of Korea
Sung-Ryul Kim, Konkuk University, Republic of Korea
Sung Y. Shin, South Dakota State University, United States

Off-Line (Optimal) Multiprocessor Scheduling of Dependent Periodic Tasks

Julie Baro, ONERA, France
Frédéric Boniol, ONERA, France
Mikel Cordovilla, ONERA, France
Eric Noulard, ONERA, France
Claire Pagetti, ONERA, France

Detecting Malware Signatures in a Thin Hypervisor

Yoshihiro Oyama, The University of Electro-Communications, Japan
Tran Truong Duc Giang, The University of Electro-Communications, Japan
Yosuke Chubachi, University of Tsukuba, Japan
Takahiro Shinagawa, The University of Tokyo, Japan
Kazuhiko Kato, University of Tsukuba, Japan

Real-Time Flash Memory Storage with Janus-FTL

Jongmin Lee, University of Seoul, Republic Of Korea
Ahreum Kim, Soongsil University, Republic of Korea
Moonju Park, University of Incheon, Republic of Korea
Jongmoo Choi, Dankook University, Republic of Korea
Donghee Lee, University of Seoul, Republic of Korea
Sam H. Noh, Hongik University, Republic of Korea

Hypervisor-Based Protection of Sensitive Files in a Compromised System

Junqing Wang, Shanghai Jiao Tong University, China
Miao Yu, Shanghai Jiao Tong University, China
Bingyu Li, Shanghai Jiao Tong University, China
Zhengwei Qi, Shanghai Jiao Tong University, China
Haibing Guan, Shanghai Jiao Tong University, China

TUE 2:10 – 3:50

SALA 300B

(RE-2) Requirements Engineering

Session Chair: John Mylopoulos, University of Toronto, Canada

EA-Tracer: Identifying Traceability Links between Code Aspects and Early Aspects

Alberto Sardinha, INESC-ID and Instituto Superior Técnico, Portugal
Nan Niu, Mississippi State University, United States
Yijun Yu, The Open University, United Kingdom
Awais Rashid, Lancaster University, United Kingdom

Goal-Oriented Approach to Creating Class Diagrams with OCL Constraints

Sombat Chanvilai, The University of electro-Communications, Japan
Kozo Honda, The University of electro-Communications, Japan
Hiroyuki Nakagawa, The University of electro-Communications, Japan
Yasuyuki Tahara, The University of electro-Communications, Japan
Akihiko Ohsuga, The University of electro-Communications, Japan

A Comparative Evaluation of Two User Feedback Techniques for Requirements Trace Retrieval

Yonghee Shin, DePaul University, United States
Jane Cleland-Huang, DePaul University, United States

Functional Requirements Validation by Transforming use Case Models into Abstract State Machines

Patrizia Scandurra, DIIM - University of Bergamo, Italy
Tao Yue, Simula Research Laboratory, Italy
Andrea Arnoldi, DIIM - University of Bergamo, Italy
Marco Dolci, DIIM - University of Bergamo, Norway

TUE 2:10 – 3:50

SALA 100

(PL-2) Programming Language (OOPS) Object oriented Programming Languages and Systems

Session Chair: Barrett Bryant, University of North Texas, USA

Evaluation of Trace Inlining Heuristics for Java

Christian Häubl, Johannes Kepler University Linz, Austria
Christian Wimmer, Oracle Labs, United States
Hanspeter Mössenböck, Institute for System Software, Johannes Kepler University Linz, Austria

Programming and Deployment of Active Objects with Application-Level Scheduling

Behrooz Nobakht, Leiden Institute of Advanced Computer Science, Netherlands
Frank S. de Boer, Centrum Wiskunde and Informatica, Netherlands
Mohammad Mahdi Jaghoori, Centrum Wiskunde and Informatica, Netherlands
Rudolf Schlatte, University of Oslo, Norway

Pattern-Based Traits

Weiyu Miao, University of Colorado at Boulder, United States
Jeremy Siek, University of Colorado at Boulder, United States

A Type System for Checking Specialization of Packages in Object-Oriented Programming

Ferruccio Damiani, Università di Torino, Italy
Arnd Poetzsch-Heffter, University of Kaiserslautern, Germany
Yannick Welsch, University of Kaiserslautern, Germany

Exploiting Regularity of User-Defined Types to Improve Precision of Program Analyses

Xiaolong Tang, Texas A&M University, United States
Jaakko Järvi, Texas A&M University, United States

3:50 – 4:20 **PALA MEETING**
Coffee Break

TUE 4:20 – 6:00 **SALA STAMPA**

(DM-3) Data Mining

Session Chair: Dino Ienco, CEMAGREF, France

Multi-Label Classification using Boolean Matrix Decomposition

Jörg Wicker, Johannes Gutenberg-Universität Mainz, Germany
Bernhard Pfahringer, The University of Waikato, New Zealand
Stefan Kramer, Johannes Gutenberg-Universität Mainz, Germany

A People-to-People Recommendation System using Tensor Space Models

Sangeetha Kutty, Queensland University of Technology, Australia
Lin Chen, Queensland University of Technology, Australia
Richi Nayak, Queensland University of Technology, Australia

CCDR-PAID: More Efficient Cache-Conscious PAID Algorithm by Data Reconstruction

Yuki Matsubara, Nara Institute of Science and Technology, Japan
Jun Miyazaki, Nara Institute of Science and Technology, Japan
Goshiro Yamamoto, Nara Institute of Science and Technology, Japan

Yuki Uranishi, Nara Institute of Science and Technology, Japan
Sei Ikeda, Nara Institute of Science and Technology, Japan
Hirokazu Kato, Nara Institute of Science and Technology, Japan

A New Class of Constraints for Constrained Frequent Pattern Mining

Carson Kai-Sang Leung, University of Manitoba, Canada
Lijing Sun, University of Manitoba, Canada

Joint Sentiment Aspect Model

Noriaki Kawamae, Tokyo Denki University, Japan

TUE 4:20 – 6:00 **SALA 300A**

(COSYS) Cooperative Systems in Heterogeneous Environments

Session Chair: Rachid Anane, Coventry University, UK

Dependency-Based Automatic Locking for Semantic Conflict Prevention in Real-Time Collaborative Programming

Hongfei Fan, Nanyang Technological University, Singapore
Chengzheng Sun, Nanyang Technological University, Singapore

Testing the Reliability of Web Services Transactions in Cooperative Applications

Rubén Casado, University of Oviedo, Spain
Javier Tuya, University of Oviedo, Spain
Muhammad Younas, Oxford Brookes University, United Kingdom

Mechanism Design for Decentralized Vehicle Routing Problem

Mohammed Saleh, Concordia University, Canada
Andrei Soeanu, Concordia University, Canada
Sujoy Ray, Concordia University, Canada
Mourad Debbabi, Concordia University, Canada
Jean Berger, Defence Research & Development Canada-Valcartier, Canada
Abdeslem Boukhtouta, Defence Research & Development Canada-Valcartier, Canada

Multi-Agent Framework for Real-Time Processing of Large and Dynamic Search Spaces

John Korah, University of Texas at El Paso, United States
Eunice E. Santos, University of Texas at El Paso, United States
Eugene Santos Jr., Dartmouth College, United States

TUE 4:20 – 6:00 **SALA BELVEDERE**

(OS-3) Operating Systems

Session Chair: Seungwon Lee, Samsung Electronics(SAIT), Republic of Korea

Hypervisor-Based Background Encryption

Yushi Omote, University of Tsukuba, Japan
Yosuke Chubachi, University of Tsukuba, Japan
Takahiro Shinagawa, University of Tokyo, Japan
Tomohiro Kitamura, Igel Co., Ltd., Japan
Hideki Eiraku, Igel Co., Ltd., Japan
Katsuya Matsubara, Igel Co., Ltd., Japan

AAGC: An Efficient Associativity-Aware Garbage Collection Scheme for Hybrid FTLs

Bongjae Kim, Seoul National University, Republic Of Korea
Cheol Jeon, Seoul National University, Republic of Korea
Yookun Cho, Seoul National University, Republic of Korea
Minkyu Park, Konkuk University, Republic of Korea
Chang Oan Sung, Indiana University Southeast, United States
Jiman Hong, Soongsil University, Republic of Korea
Kyoung Woo Kim, University College London School of Energy, Australia

Reducing Last Level Cache Pollution through OS-Level Software-Controlled Region-Based Partitioning

Tao Huang, Peking University, China
Qi Zhong, Peking University, China
Xuetao Guan, Peking University, China
Xiaoyin Wang, Peking University, China
Xu Cheng, Peking University, China
Keyi Wang, Peking University, China

A Fast Mount Mechanism for YAFFS2

Jinman Jung, Seoul National University, Republic Of Korea
Joonhyouk Jang, Seoul National University, Republic of Korea
Yookun Cho, Seoul National University, Republic of Korea
Hwansoo Han, Sungkyunkwan University, Republic of Korea

Gwangil Jeon, Korea Polytechnic University, Republic of Korea
Seong-Je Cho, Dankook University, Republic of Korea
Minwoo Jang, Soongsil University, Republic of Korea
Jung Y. Kim, Utica College,

TUE 4:20 – 6:00 SALA 300B

(SE-1) Software Engineering

Session Chair: W. Eric Wong, University of Texas at Dallas, USA

Integrating Event Logs into KDM Repositories

Ricardo Pérez-Castillo, University of Castilla-La Mancha, Spain
Ignacio García-Rodríguez de Guzmán, University of Castilla-La Mancha, Austria
Mario Piattini, University of Castilla-La Mancha, Spain
Barbara Weber, University of Innsbruck, Spain

TAM2: Automated Threat Analysis

Andreas Schaad, SAP Research, Germany
Mike Borozdin, University of Trento, Italy

An Empirical Investigation of Perceived Reliability of Open Source Java Programs

Luigi Lavazza, Università degli Studi dell'Insubria, Italy
Sandro Morasca, Università degli Studi dell'Insubria, Italy
Davide Taibi, Università degli Studi dell'Insubria, Italy
Davide Tosi, Università degli Studi dell'Insubria, Italy

Managing the Dynamism of the OSGi Service Platform in Real-Time Java Applications

João Claudio Américo, Université de Grenoble, France
Walter Rudametkin, Université de Grenoble, France
Didier Donsez, Université de Grenoble, France

On the Improvement of a Fault Classification Scheme with Implications for White-Box Testing

Shimul Kumar Nath, Swinburne University of Technology, Australia
Robert Merkel, Monash University, Australia
Man Fai Lau, Swinburne University of Technology, Australia

TUE 4:20 – 6:00 SALA 100

(DS) Data Streams

Session Chair: João Gama, University of Porto, Portugal

Very Fast Decision Rules for Multi-Class Problems

Petr Kosina, LIAAD-INESC Porto, Portugal
João Gama, LIAAD-INESC Porto, Portugal

Real-Time Visual Analytics for Event Data Streams

Fabian Fischer, University of Konstanz, Germany
Florian Mansmann, University of Konstanz, Germany
Daniel A. Keim, University of Konstanz, Germany

Discovering Global and Local Bursts in a Stream of News

Max Zimmermann, Otto-von-Guericke-University Magdeburg, Germany
Irene Ntoutsis, Ludwig-Maximilians-Universität München, Germany
Zaigham Faraz Siddiqui, Otto-von-Guericke-University Magdeburg, Germany

Myra Spiliopoulou, Otto-von-Guericke-University Magdeburg, Germany
Hans-Peter Kriegel, Ludwig-Maximilians-Universität München, Germany

Revisiting Formal Ordering in Data Stream Querying

Loïc Petit, Grenoble University, France
Cyril Labbé, Grenoble University, France
Claudia Roncancio, Grenoble University, France

Discovering Activity Interactions in a Single Pass over a Video Stream

Omar U. Florez, Utah State University, United States
Curtis Dyreson, Utah State University, United States

Wednesday March 28, 2012

WED 9:00 – 10:40 SALA STAMPA

(CSP-1) Constraint Solving and Programming

Session Chair: Stefano Bistarelli, Università di Perugia, Italy and IIT-CNR, Pisa, Italy

On the Complexity of Temporal Controllabilities for Workflow Schemata

Carlo Combi, University of Verona, Italy
Roberto Posenato, University of Verona, Italy

Solving Non-Linear Arithmetic Constraints in Soft Realtime Environments

Hendrik Skubch, University of Kassel, Germany

Solution Neighbourhoods for Constraint-Directed Local Search

Jun He, Uppsala University, Sweden
Pierre Flener, Uppsala University, Sweden
Justin Pearson, Uppsala University, Sweden

Combinatorial Problem Solving over Relational Databases: View Synthesis through Constraint-Based Local Search

Toni Mancini, Sapienza University, Italy
Pierre Flener, Uppsala University, Sweden
Justin K. Pearson, Uppsala University, Sweden

Partition Refinement for Bisimilarity in CCP

Andres Aristizabal, DGA-CNRS, France
Filippo Bonchi, CNRS and LIP, ENS-LYON, France
Luis Fernando Pino, DGA-INRIA, France
Frank D. Valencia, CNRS, France

WED 9:00 – 10:40 SALA 300A

(WT-1) Web Technologies

Session Chair: Davide Rossi, University of Bologna, Italy

Process-Aware Continuation Management in Web Applications

Matthias Book, University of Duisburg-Essen, Germany
Volker Gruhn, University of Duisburg-Essen, Germany
Marco Buss, StoneOne AG, Germany

Data Binding for Standard-Based Web Applications

Matthias Heinrich, SAP AG, Germany
Martin Gaedke, Chemnitz University of Technology, Germany

An Approach to Improve Code-First Web Services Discoverability at Development Time

José Luis Ordiales Coscia, UNICEN, Argentina
Marco Crasso, ISISTAN-UNICEN-CONICET, Argentina
Cristian Mateos, ISISTAN-UNICEN-CONICET, Argentina
Alejandro Zunino, ISISTAN-UNICEN-CONICET, Argentina

Using Spring Roo for the Test-Driven Development of Web Applications

Tim A. Majchrzak, University of Münster, Germany
Andreas Simon, Independent, Germany

Extending XForms with Server-Side Functionality

Markku Laine, Aalto University School of Science, Finland
Denis Shestakov, Aalto University School of Science, Finland
Petri Vuorimaa, Aalto University School of Science, Finland

WED 9:00 – 10:40 SALA BELVEDERE

(IAR-1) Information Access and Retrieval

Session Chair: Gloria Bordogna, CNR, Italy

Inverted File-Based Indexing for Efficient Multimedia Information Retrieval in Metric Spaces

Daniel Blank, University of Bamberg, Germany
Andreas Henrich, University of Bamberg, Germany

A Consistency Rule for Graph Isomorphism Problem

Badreddine Benreguia, Abderrahmane Mira University, Bejaia, Algeria
Hamamache Kheddouci, GAMA Lab. - Lyon1 University, France

Fine-Grained Topic Detection in News Search Results

Jia Cheng, Shanghai Jiao Tong University, China
Jingyu Zhou, Shanghai Jiao Tong University, China
Shuang Qiu, Shanghai Jiao Tong University, China

A Pilot Study for Mood-Based Classification of TV Programmes

Jana Eggink, British Broadcasting Corporation (BBC), United Kingdom
Penelope Allen, British Broadcasting Corporation (BBC), United Kingdom
Denise Bland, British Broadcasting Corporation (BBC), United Kingdom

Towards Effective Group Recommendations for Microblogging Users

Ricardo Lage, Aalborg University, Denmark
Frederico Durao, Aalborg University, Denmark
Peter Dolog, Aalborg University, Denmark

WED 9:00 – 10:40

SALA 300B

(SE-2) Software Engineering

Session Chair: John Kim, Utica College, USA

An Architecture-Centered Framework for Developing Blog Crawlers

Rafael Ferreira, Federal University of Pernambuco, Brazil
Jean Melo, Federal University of Alagoas, Brazil
Rinaldo Lima, Federal University of Pernambuco, Brazil
Patrick Brito, Federal University of Alagoas, Brazil
Evandro Costa, Federal University of Alagoas, Brazil
Fred Freitas, Federal University of Pernambuco, Brazil

Ontology-Based Documentation Extraction for Semi-Automatic Migration of Java Code

Davide Ancona, University of Genova, Italy
Viviana Mascardi, University of Genova, Italy
Ombretta Pavarino, University of Genova, Italy

Dynamic Reconfiguration in Self-Adaptive Systems Considering Non-Functional Properties

Hisayuki Horikoshi, The University of Electro-Communications, Japan
Hiroyuki Nakagawa, The University of Electro-Communications, Japan
Yasuyuki Tahara, The University of Electro-Communications, Japan
Akihiko Ohsuga, The University of Electro-Communications, Japan

From Relational ClassSheets to UML+OCL

Jácome Cunha, University of Minho, Portugal
João Paulo Fernandes, University of Minho & University of Porto, Portugal
João Saraiva, University of Minho, Portugal

DAG3: A Tool for Design and Analysis of Applications for Multicore Architectures

Mauro Luigi Drago, Politecnico di Milano, Italy
Judith Bishop, Microsoft Research, United States

WED 9:00 – 10:40

SALA 100

(BIO-1) Bioinformatics

Session Chair: Dan Tulpan, Institute for Information Technology, National Research Council of Canada

Computing Gene Functional Similarity using Combined Graphs

Anurag Nagar, University of Houston, United States
Hisham Al-Mubaid, University of Houston, United States
Said Bettayeb, University of Houston, United States

Sorting Genomes using Almost-Symmetric Inversions

Zanoni Dias, University of Campinas, Brazil
Ulisses Dias, University of Campinas, Brazil
Lenwood S. Heath, Virginia Tech, United States
João C. Setubal, Virginia Tech, United States

Relationship of Reproduction and Evolutionary Computation to Analytical Modeling of the Ecological Genetics of Inducible Defenses

Gloria Childress Townsend, DePauw University, United States
Wade N. Hazel, DePauw University, United States
Benjamin Steffen, University of California Berkeley, United States

Performance Evaluation of Medical Imaging Service

E. Tavares, Federal University of Pernambuco, Brazil
J. Aleixo, Federal University of Pernambuco, Brazil
P. Maciel, Federal University of Pernambuco, Brazil
D. Oliveira, Federal University of Pernambuco, Brazil
E. Heyde, Federal University of Pernambuco, Brazil
R. Araujo, Federal University of Pernambuco, Brazil
L. Maia, Federal University of Pernambuco, Brazil
A. Duarte, Federal University of Pernambuco, Brazil
M. Novaes, Federal University of Pernambuco, Brazil

Parallelizing SuperFine

Diogo Telmo Neves, ESTFG - IPP and Universidade do Minho, Portugal
Tandy Warnow, University of Texas at Austin, United States
João Luís Sobral, Universidade do Minho, Portugal
Keshav Pingali, University of Texas at Austin, United States

10:40 – 11:10 PALA MEETING
Coffee Break

WED 11:10 – 12:50 SALA STAMPA

(CSP-2) Constraint Solving and Programming (ASIIS) Advances in Spatial and Image-Based Information Systems

Session Chair: Richard Chbeir, University of Bourgogne, France

Real Solution Formulas of Cubic and Quartic Equations Applied to Generate Dynamic Diagrams with Inequality Constraints

Ting Zhao, Beihang University & Laboratoire d'Informatique de Paris 6, China

Dongming Wang, Laboratoire d'Informatique de Paris 6, France
Hoon Hong, North Carolina State University, United States
Philippe Aubry, Laboratoire d'Informatique de Paris 6, France

Decomposition of Geometrical Constraint Systems with Reparameterization

Pascal Mathis, LSIIT, France
Pascal Schreck, LSIIT, France
Remi Imbach, LSIIT, France

A Method for Identification of Moving Objects by Integrative use of a Camera and Accelerometers

Naoka Maruhashi, Kobe University, Japan
Tsumotomu Terada, Kobe University, Japan
Masahiko Tsukamoto, Kobe University, Japan

History-Independence: A Fresh Look at the Case of R-Trees

Theodoros Tzouramanis, University of the Aegean, Greece

Representation and Management of Spatiotemporal Data in Object-Relational Databases

Luis Matos, IEETA - University of Aveiro, Portugal
José Moreira, IEETA/DETI - University of Aveiro, Portugal
Alexandre Carvalho, INESC/DEI - University of Porto, Portugal

WED 11:10 – 12:50 SALA 300A

(WT-2) Web Technologies

Session Chair: Silvio Peroni, University of Bologna, Italy

Finding Similar Items by Leveraging Social Tag Clouds

Chu-Cheng Hsieh, University of California, Los Angeles, United States
Junghoo Cho, University of California, Los Angeles, United States

Embedding Semantic Annotations within Texts: The FRETТА Approach

Gioele Barabucci, University of Bologna, Italy
Silvio Peroni, University of Bologna, Italy
Francesco Poggi, University of Bologna, Italy
Fabio Vitali, University of Bologna, Italy

Querying and Ranking News Items in the Hermes Framework

Arnout Verheij, Erasmus University Rotterdam, Netherlands
Allard Kleijn, Erasmus University Rotterdam, Netherlands
Flavius Frasinca, Erasmus University Rotterdam, Netherlands
Damir Vadic, Erasmus University Rotterdam, Netherlands
Frederik Hogenboom, Erasmus University Rotterdam, Netherlands

Approximately Optimal Facet Selection

Sonya Liberman, CONTEXTin, Israel
Ronny Lempel, Yahoo! Labs, Israel

Statistical Techniques for Online Personalized Advertising: A Survey

Maad Shatnawi, UAEU, United Arab Emirates
Nader Mohamed, UAEU, United Arab Emirates

WED 11:10 – 12:50 SALA BELVEDERE

(IAR-2) Information Access and Retrieval

Session Chair: Gabriella Pasi, Università di Milano - Bicocca, Italy

Enhancing Semi-Supervised Document Clustering with Feature Supervision

Yeming Hu, Dalhousie University, Canada
Evangelos E. Milios, Dalhousie University, Canada
James Blustein, Dalhousie University, Canada

Investigations into User Rating Information and Predictive Accuracy in a Collaborative Filtering Domain

Josephine Griffith, National University of Ireland, Galway, Ireland
Colm O'Riordan, National University of Ireland, Galway, Ireland
Humphrey Sorensen, University College Cork, Ireland

Uprising Microblogs: A Bayesian Network Retrieval Model for Tweet Search

Lamjed Ben Jabeur, IRIT, France
Lynda Tamine, IRIT, France
Mohand Boughanem, IRIT, France

Effective Web Video Clustering using Playlist Information

Mariko Kamie, University of Tsukuba, Japan
Takako Hashimoto, Chiba University of Commerce, Japan
Hiroyuki Kitagawa, University of Tsukuba, Japan

HMM-CARE: Hidden Markov Models for Context-Aware Tag Recommendation in Folksonomies

Chiraz Trabelsi, University of Tunis El-Manar, Tunisia
Bilel Moulahi, University of Tunis El-Manar, Tunisia
Sadok Ben Yahia, University of Tunis El-Manar, Tunisia

WED 11:10 – 12:50 SALA 300B

(SE-3) Software Engineering

Session Chair: John Kim, Útica College, USA

RefactoringNG: A Flexible Java Refactoring Tool

Zdeněk Troníček, FIT CTU in Prague, Czech Republic

Estimating Software Reliability via Pseudo Maximum Likelihood Method

Shinya Ikemoto, Hiroshima University, Japan
Tadashi Dohi, Hiroshima University, Japan
Hiroyuki Okamura, Hiroshima University, Japan

Investigating Framework Product Lines

André Luiz de Oliveira, Universty of São Paulo, Brazil
Fabiano Cuttigi Ferrari, Federal University of São Carlos, Brazil
Rosângela A. Delloso Pentead, Federal University of São Carlos, Brazil
Valter Vieira de Camargo, Federal University of São Carlos, Brazil

Experience Report on Developing the Front-End Client Unit under the Control of Formal Methods

Jan Friso Groote, Eindhoven University of Technology, Netherlands
Ammar Osaiweran, Eindhoven University of Technology, Netherlands
Jacco Wesselius, Philips Healthcare, Netherlands

WED 11:10 – 12:50 SALA 100

(BIO-2) Bioinformatics

Session Chair: Paola Lecca, The Microsoft Research – University of Trento COSBI, Italy

Molecular Docking with Opposition-Based Differential Evolution

Mohamad Koohi-Moghadam, Iran University of Science and Technology, Iran (Islamic Republic Of)
Adel Torkaman Rahmani, Iran University of Science and Technology, Iran (Islamic Republic of)

Probabilistic Prediction of Protein Phosphorylation Sites using Kernel Machines

Mark Menor, University of Hawaii at Manoa, United States

Guylaine Poisson, University of Hawaii at Manoa, United States
Kyungim Baek, University of Hawaii at Manoa, United States

Analyzing Incomplete Biological Pathways using Network Motifs

Maya El Dayeh, Southern Methodist University, United States
Michael Hahsler, Southern Methodist University, United States

Minimum Multiple Characterization of Biological Data using Partially Defined Boolean Formulas

Fabien Chhel, University of Angers, LERIA, France
Adrien Goëffon, University of Angers, LERIA, France
Frédéric Lardeux, University of Angers, LERIA, France
Frédéric Saubion, University of Angers, LERIA, France

A Model for Drosophila Melanogaster Development from a Single Cell to Stripe Pattern Formation

Sara Montagna, Università di Bologna, Italy
Danilo Pianini, Università di Bologna, Italy
Mirko Viroli, Università di Bologna, Italy

12:50 – 2:10 PALA MEETING

Lunch Break

WED 2:10 – 3:50 SALA STAMPA

(EC-1) Evolutionary Computing

Session Chair: Clara Pizzuti, ICAR-CNR, Italy

Boosting the Detection of Modular Community Structure with Genetic Algorithms and Local Search

Clara Pizzuti, ICAR-CNR, Italy

Introducing Intervention Targeting into Estimation of Distribution Algorithms

Geoffrey Neumann, University of Stirling, United Kingdom
David Cairns, University of Stirling, United Kingdom

Stochastic Search for Global Neighbors Selection in Collaborative Filtering

Amine Boumaza, LISIC - Université du Littoral, France
Armelle Brun, LORIA - Nancy Université, France

Real-Time Scheduling of Twin Stacking Cranes in an Automated Container Terminal using a Genetic Algorithm

Ri Choe, Pusan National University, Republic Of Korea
Hui Yuan, Pusan National University, Republic of Korea
Youngjee Yang, Pusan National University, Republic of Korea
Kwang Ryel Ryu, Pusan National University, Republic of Korea

Analysis of a Triploid Genetic Algorithm over Deceptive Landscapes

Li Meng, National University of Ireland Galway, Ireland
Seamus Hill, National University of Ireland Galway, Ireland
Colm O'Riordan, National University of Ireland Galway, Ireland

WED 2:10 – 3:50

SALA 300A

(WT-3) Web Technologies

Session Chair: Laércio Augusto Baldochi, Jr., Federal University of Itajubá, Brazil

(DADS-1) Dependable and Adaptive Distributed Systems

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

Towards an Automatic Evaluation of Web Applications

Leandro Guarino de Vasconcelos, Federal University of Itajubá, Brazil

Laércio Augusto Baldochi, Jr., Federal University of Itajubá, Brazil

RetriBlog: A Framework for Creating Blog Crawlers

Rafael Ferreira, Federal University of Pernambuco, Brazil

Rinaldo Lima, Federal University of Pernambuco, Brazil

Jean Melo, Federal University of Alagoas, Brazil

Evandro Costa, Federal University of Alagoas, Brazil

Fred Freitas, Federal University of Pernambuco, Brazil

Henrique Pacca, Federal University of Alagoas, Brazil

DRAP: A Robust Authentication Protocol to Ensure Survivability of Computational RFID Networks

Farzana Rahman, Marquette University, United States

Sheikh Iqbal Ahamed, Marquette University, United States

Non-Intrusive Policy Optimization for Dependable and Adaptive Service-Oriented Systems

Christian Inzinger, Vienna University of Technology, Austria

Benjamin Satzger, Vienna University of Technology, Austria

Waldemar Hummer, Vienna University of Technology, Austria

Philipp Leitner, Vienna University of Technology, Austria

Schahram Dustdar, Vienna University of Technology, Austria

WED 2:10 – 3:50

SALA BELVEDERE

(MMV-1) Multimedia and Visualization

Session Chair: Maria da Graça Pimentel, U. de São Paulo, Brazil

A Compilation Technique to Increase X3D Performance and Safety

Giuseppe Maggiore, Università Ca' Foscari di Venezia, Italy

Fabio Pittarello, Università Ca' Foscari di Venezia, Italy

Michele Bugliesi, Università Ca' Foscari di Venezia, Italy

Mohamed Abbadi, Università Ca' Foscari di Venezia, Italy

A Multimedia Recommender System based on Enriched User Profiles

Marcelo G. Manzato, University of Sao Paulo, Brazil

Rudinei Goularte, University of Sao Paulo, Brazil

Towards the Visualization of Software Systems as 3D Forests: The CodeTrees Environment

Ugo Erra, Università della Basilicata, Italy

Giuseppe Scanniello, Università della Basilicata, Italy

MINI – A 3D Mobile Image Browser with Multi-Dimensional Datasets

Ai Gomi, Ochanomizu University, Japan

Takayuki Itoh, Ochanomizu University, Japan

WED 2:10 – 3:50

SALA 300B

(SE-4) Software Engineering

Session Chair: Chang Oan Sung, Indiana University Southeast, USA

Fault Class Prioritization in Boolean Expressions

Ziyuan Wang, Nanjing University, China

Zhenyu Chen, Nanjing University, China

Tsong-Yueh Chen, Swinburne University of Technology, Australia

Baowen Xu, Nanjing University, China

A Knowledge-Based Framework for Reference Architectures

Elisa Yumi Nakagawa, University of São Paulo, Brazil

Martin Becker, Fraunhofer IESE, Germany

José Carlos Maldonado, University of São Paulo, Brazil

Software Testing-Resource Allocation with Operational Profile

Satoru Ukimoto, Hiroshima University, Japan

Tadashi Dohi, Hiroshima University, Japan

Hiroyuki Okamura, Hiroshima University, Japan

Predicting Software Maintenance Effort through Evolutionary-Based Decision Trees

Márcio P. Basgalupp, ICT-UNIFESP, Brazil

Rodrigo C. Barros, ICMC-USP, Brazil

Duncan D. Ruiz, PUCRS, Brazil

A Further Analysis on the use of Genetic Algorithm to Configure Support Vector Machines for Inter-Release Fault Prediction

F. Sarro, University of Salerno, Italy

S. Di Martino, University of Naples, Italy

F. Ferrucci, University of Salerno, Italy

C. Gravino, University of Salerno, Italy

WED 2:10 – 3:50

SALA 100

(CM-1) Coordination Models, Languages and Applications

Session Chair: Mirko Viroli, Alma Mater Studiorum, Università di Bologna, Italy

(SCS)Self-Organizing Complex Systems

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

Dreams: A Framework for Distributed Synchronous Coordination

José Proença, K.U.Leuven, Belgium

Dave Clarke, K.U.Leuven, Belgium

Erik de Vink, T.U. Eindhoven, Netherlands

Farhad Arbab, Centrum Wiskunde & Informatica, Netherlands

Expressing Global Priorities by Best-Matching

Igor Cappello, DISI, University of Trento, Italy

Paola Quaglia, DISI, University of Trento, Italy

Passive Conformance Testing of Service Choreographies

Huu Nghia Nguyen, LRI and Université Paris-Sud, France

Pascal Poizat, LRI and Université d'Evry, France

Fatiha Zaïdi, LRI and Université Paris-Sud, France

A Büchi Automata based Model Checking Framework for Reo Connectors

Sarmen Keshishzadeh, Sharif University of Technology, Iran
(Islamic Republic Of)
Mohammad Izadi, Sharif University of Technology, Iran (Islamic Republic of)
Ali Movaghar, Sharif University of Technology, Iran (Islamic Republic of)

Pervasive Ecosystems: A Coordination Model based on Semantic Chemistry

Mirko Viroli, Alma Mater Studiorum - Università di Bologna, Italy
Danilo Pianini, Alma Mater Studiorum - Università di Bologna, Italy
Sara Montagna, Alma Mater Studiorum - Università di Bologna, Italy
Graeme Stevenson, University of St. Andrews, United Kingdom

3:50 – 4:20 PALA MEETING
Coffee Break

WED 4:20 – 6:00 SALA STAMPA

(EC-2) Evolutionary Computing
(CIVIA) Computational Intelligence and Video & Image Analysis

Session Chair: Clara Pizzuti, ICAR-CNR, Italy
Session Chair: Agostinho Rosa, Technical University of Lisbon, Portugal

A Genetic Algorithm for Hierarchical Multi-Label Classification

Ricardo Cerri, University of São Paulo, Brazil
Rodrigo C. Barros, University of São Paulo, Brazil
Andre C.P.L.F. Carvalho, University of São Paulo, Brazil

Multilayer Fuzzy ARTMAP: Fast Learning and Fast Testing for Pattern Classification

Tatt Hee Oong, Universiti Sains Malaysia, Malaysia
Nor Ashidi Mat Isa, Universiti Sains Malaysia, Malaysia

An Application of Circumscribed Circle Filter in the Multi-Stencils Fast Marching Method

Hong Liu, Huazhong University of Science and Technology, China
Huaifei Hu, Huazhong University of Science and Technology, China
Enmin Song, Huazhong University of Science and Technology, China
Chih-Cheng Hung, Southern Polytechnic State University, United States
Mali Yu, Huazhong University of Science and Technology, China

A Novel Segmentation Method for Convex Lesions based on Dynamic Programming with Local Intra-Class Variance

Mali Yu, Huazhong University of Science and Technology, China
Renchao Jin, Huazhong University of Science and Technology, China
Hong Liu, Huazhong University of Science and Technology, China
Qiliang Huang, Second People's Hospital of Nanning, China

Enmin Song, Huazhong University of Science and Technology, China
Chih-Cheng Hung, Southern Polytechnic State University, United States

Rushes Video Summarization based on Spatio-Temporal Features

Tiago O. Oliveira Cunha, UFMG, Brazil
Flávio G.H. de Souza, UFMG, Brazil
Arnaldo de A. Araújo, UFMG, Brazil
Gisele L. Pappa, UFMG, Brazil

WED 4:20 – 6:00 SALA 300A

(DADS-2) Dependable and Adaptive Distributed Systems

Session Chair: Karl M. Göschka, Vienna University of Technology, Österreich

FTRMI: Fault-Tolerant Transparent RMI

Diogo Reis, University of Lisbon - LaSIGE, Portugal
Hugo Miranda, University of Lisbon - LaSIGE, Portugal

Timeout-Based Adaptive Consensus: Improving Performance through Adaptation

Mónica Dixit, University of Lisboa, Portugal
Henrique Moniz, University of Lisboa, Portugal
António Casimiro, University of Lisboa, Portugal

Formal Verification of Unreliable Failure Detectors in Partially Synchronous Systems

M. Atif, Eindhoven University of Technology, Netherlands
M.R. Mousavi, Eindhoven University of Technology, Netherlands
A. Osaiweran, Eindhoven University of Technology, Netherlands

Using Constraint-based Optimization and Variability to Support Continuous Self-Adaptation

Carlos Parra, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, France
Daniel Romero, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, France
Sébastien Mosser, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, France
Romain Rouvoy, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, France
Laurence Duchien, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, France
Lionel Seinturier, Université de Lille 1, LIFL CNRS UMR 8022, INRIA Lille-Nord Europe, Institut Universitaire de France, France

WED 4:20 – 6:00 SALA BELVEDERE

(MMV-2) Multimedia and Visualization

Session Chair: Maria da Graça Pimentel, U. de São Paulo, Brazil

Time-Aware Visualization of Document Collections

Aretha B. Alencar, Universidade de São Paulo, Brazil
Fernando V. Paulovich, Universidade de São Paulo, Brazil
Katy Börner, Indiana University, United States
Maria Cristina F. de Oliveira, Universidade de São Paulo, Brazil

RevGlyph – A Technique for Reverting Anaglyph Stereoscopic Videos

Matheus Ricardo Uihara Zingarelli, Universidade de São Paulo, Brazil
Leonardo Antonio de Andrade, Universidade Federal de São Carlos, Brazil
Rudinei Goularte, Universidade de São Paulo, Brazil

Image Retrieval Employing Genetic Dissimilarity Weighting and Feature Space Transformation Functions

Letricia P.S. Avalhais, Universidade de São Paulo, Brazil
Sergio F. da Silva, Universidade de São Paulo, Brazil
Jose F. Rodrigues Jr., Universidade de São Paulo, Brazil
Agma J.M. Traina, Universidade de São Paulo, Brazil

A Media-Based Social Interactions Analysis Procedure

Alan Keller Gomes, University of São Paulo, Brazil
Maria da Graça Campos Pimentel, University of São Paulo, Brazil

WED 4:20 – 6:00 SALA 300B

(SE-5) Software Engineering

Session Chair: Chang Oan Sung, Indiana University Southeast, USA

Software Development Effort Estimation

Federica Sarro, University of Salerno, Italy
Filomena Ferrucci, University of Salerno, Italy
Carmine Gravino, University of Salerno, Italy

Comparative Stability of Cloned and Non-Cloned Code: An Empirical Study

Manishankar Mondal, University of Saskatchewan, Canada
Chanchal K. Roy, University of Saskatchewan, Canada
Md. Saidur Rahman, University of Saskatchewan, Canada
Ripon K. Saha, University of Saskatchewan, Canada
Jens Krinke, University College London, United Kingdom
Kevin A. Schneider, University of Saskatchewan, Canada

IDE-Based Real-Time Focused Search for Near-Miss Clones

Minhaz F. Zibran, University of Saskatchewan, Canada
Chanchal K. Roy, University of Saskatchewan, Canada

AODP: Refactoring Code to Provide Advanced Aspect-Oriented Modularization of Design Patterns

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

WED 4:20 – 6:00 SALA 100

(CM-2) Coordination Models, Languages and Applications

(PSC) Programming for Separation of Concerns

Session Chair: Emiliano Tramontana, University of Catania, Italy

Modeling Adaptation with a Tuple-Based Coordination Language

Edmond Gjongrekaj, Università degli Studi di Firenze, Italy
Michele Loreti, Università degli Studi di Firenze, Italy

Rosario Pugliese, Università degli Studi di Firenze, Italy
Francesco Tiezzi, IMT, Institute for Advanced Studies, Lucca, Italy

Programming Urban-Area Applications

Dries Harnie, Vrije Universiteit Brussel, Belgium
Elisa Gonzalez Boix, Vrije Universiteit Brussel, Belgium
Theo D'Hondt, Vrije Universiteit Brussel, Belgium
Wolfgang De Meuter, Vrije Universiteit Brussel, Belgium

Evolution of Composition Filters to Event Composition

Somayah Malakuti, University of Twente, Netherlands
Mehmet Aksit, University of Twente, Netherlands

Towards a Colored Reflective Petri-Net Approach to Model Self-Evolving Service-Oriented Architectures

Ying Liu, Northeastern University, China
Walter Cazzola, University of Milano, Italy
Bin Zhang, Northeastern University, China

Thursday March 29, 2012

**THU 10:40 - 12:50 PALA MEETING
Poster Session I**

Posters of the following Tracks: **ASIIS, BIO, CC, CIVIA, COSYS, CSP, DM, DS, EC, IAR, OS, PSC, PL, RE, WT** (see the detailed list of Posters on Page 26).

**THU 9:00 – 10:40 SALA 1000
Keynote Address**

Advice to a Friend
Dr. Anthony Finkelstein
University College London, Department of
Computer Science, Gower Street, London
WC1E 6BT, UK

See details on Page 6.

**10:40 – 11:10 PALA MEETING
Coffee Break**

THU 11:10 – 12:50 SALA STAMPA

(SWA-1) The Semantic Web and Its Applications

Session Chair: Hyoil Han, Marshall University, USA

Harnessing Geo-Tagged Resources for Web Personalization

Markus Zanker, Alpen-Adria-Universitaet Klagenfurt, Austria
Markus Jessenitschnig, Smarter Software, Austria
Martin Stromberger, FH Kärnten, Austria

Extending Open Directory Project to Represent User Interests

Seulgi So, Korea University, Republic Of Korea
Jung-Hyun Lee, Korea University, Republic of Korea
Daoun Jung, Korea University, Republic of Korea
JongWoo Ha, Korea University, Republic of Korea
SangKeun Lee, Korea University, Republic of Korea

Linked Education: Interlinking Educational Resources and the Web of Data

Stefan Dietze, Leibniz University, Germany
Hong Qing Yu, The Open University, United Kingdom
Daniela Giordano, University of Catania, Italy
Eleni Kaldoudi, University of Thrace, Greece
Nikolas Dovrolis, University of Thrace, Greece
Davide Taibi, Italian National Research Council, Italy

A Distributional Approach for Terminological Semantic Search on the Linked Data Web

André Freitas, DERI, National University of Ireland, Ireland
Edward Curry, DERI, National University of Ireland, Ireland
Seán O'Riain, DERI, National University of Ireland, Ireland

Social Health Data Integration using Semantic Web

Soon Ae Chun, City University of New York, United States
Bonnie MacKellar, St. Johns University, United States

THU 11:10 – 12:50 SALA 300A

(DE) Document Engineering

Session Chair: TBD

Restoration of Motion Blurred Document Images

Bolan Su, National University of Singapore, Singapore
Shijian Lu, Institute for Infocomm Research, Singapore
Tan Chew Lim, National University of Singapore, Singapore

Assessing Handwritten Digit Segmentation Algorithms

Felipe Ribas, PUCPR, Brazil
Luiz S. Oliveira, UFPR, Brazil
Alceu S. Britto Jr., PUCPR, Brazil
Robert Sabourin, ETS, Brazil

Affine Invariant Shape Matching using Radon Transform and Dynamic Time Warping Distance

Makoto Hasegawa, LORIA, University Nancy 2, France
Salvatore Tabbone, LORIA, University Nancy 2, France

Multi-Document Summarization Exploiting Frequent Itemsets

Elena Baralis, Politecnico di Torino, Italy
Luca Cagliero, Politecnico di Torino, Italy
Alessandro Fiori, Politecnico di Torino, Italy
Saima Jabeen, Politecnico di Torino, Italy

An Information Extraction System from Patient Historical Documents

Eirini Matthaïou, University of the Aegean, Greece
Ergina Kavallieratou, University of the Aegean, Greece

THU 11:10 – 12:50 SALA ELVEDERE

(DTTA-1) Data Theory, Technology, and Applications

Session Chair: Junping Sun, Nova Southeastern University, USA

C-Mapping: A Flexible XML-RDB Mapping Method based on Functional and Inclusion Dependencies

Sosuke Ota, University of Tsukuba, Japan
Atsuyuki Morishima, University of Tsukuba, Japan
Toshiyuki Amagasa, University of Tsukuba, Japan
Norihide Shinagawa, University of Tsukuba, Japan

Attribute Implications in Similarity-Based Databases: Semantic Entailment and Nonredundant Bases

Radim Belohlavek, Palacky University, Olomouc, Czech Republic
Vilem Vychodil, Palacky University, Olomouc, Czech Republic

SART: Dynamic P2P Query Processing in Sensor Networks with Probabilistic Guarantees

Spyros Sioutas, Ionian University, Greece
Alexandros Panaretos, Ionian University, Greece
Ioannis Karydis, Ionian University, Greece
Dimitrios Tsoumakos, Ionian University, Greece

DREAM: A Distributed Framework for Customized Deployment of a Variety of Indexing Engines over Million-Node Overlays

Evangelos Sakkopoulos, University of Patras, Greece
Spyros Sioutas, Ionian University, Greece
George Papaloukopoulos, University of Patras, Greece
Alexandros Panaretos, Ionian University, Greece
Dimitrios Tsoumakos, Ionian University, Greece
Anastasia Saltou, University of Patras, Greece

THU 11:10 – 12:50 SALA 300B

(EMBS-1) Embedded Systems

Session Chair: Alessio Bechini, University of Pisa, Italy

Using Model Driven Engineering to Reliably Accelerate Early Low Power Intent Exploration for a System-on-Chip Design

Ons Mbarek, University of Nice-Sophia Antipolis-CNRS, France
Amani Khecharem, University of Nice-Sophia Antipolis-CNRS, France
Alain Pegatoquet, University of Nice-Sophia Antipolis-CNRS, France
Michel Auguin, University of Nice-Sophia Antipolis-CNRS, France

On Using Adversary Simulators to Obtain Tight Lower Bounds for Response Times

Rômulo Silva de Oliveira, UFSC, Brazil
Andreu Carminati, UFSC, Brazil
Renan Augusto Starke, UFSC, Brazil

STM Concurrency Control for Multicore Embedded Real-Time Software: Time Bounds and Tradeoffs

Mohammed El-Shambakey, Virginia Tech, United States
Binoy Ravindran, Virginia Tech, United States

A Semi-Partitioned Real-Time Scheduling Approach for Periodic Task Systems on Multicore Platforms

M. Khurram Bhatti, LEAT, University of Nice-Sophia Antipolis, France
Cécile Belleudy, LEAT, University of Nice-Sophia Antipolis, France
Michel Auguin, LEAT, University of Nice-Sophia Antipolis, France

Thermal-Aware Real-Time Task Scheduling for Three-Dimensional Multicore Chip

Ting-Hao Tsai, National Taiwan University of Science and Technology, Taiwan
Ya-Shu Chen, National Taiwan University of Science and Technology, Taiwan

12:50 – 2:10 PALA MEETING
Lunch Break

THU 2:30 - 5:30 PALA MEETING
Poster Session II

Posters of the following Tracks: **CM, DE, DTTA, EE, EMBS, MCA, MMV, NETS, SWA, SOAP, SE, TRECK, ROBOT** (see the detailed list of Posters on Page 29).

THU 2:10 – 3:50 SALA STAMPA
(SWA-2) The Semantic Web and Its Applications
Session Chair: Sangsoo Sung, Google, USA

Using Hierarchical Edge Bundles to Visualize Complex Ontologies in GLOW

Walter Hop, Erasmus University Rotterdam, Netherlands
Sven de Ridder, Erasmus University Rotterdam, Netherlands
Frederik Hogenboom, Erasmus University Rotterdam, Netherlands

Flavius Frasinca, Erasmus University Rotterdam, Netherlands

A Novel FrameNet-Based Resource for the Semantic Web

Volha Bryl, Fondazione Bruno Kessler, Italy

Sara Tonelli, Fondazione Bruno Kessler, Italy
Claudio Giuliano, Fondazione Bruno Kessler, Italy
Luciano Serafini, Fondazione Bruno Kessler, Italy

Predicting RDF Triples in Incomplete Knowledge bases with Tensor Factorization

Lucas Drumond, University of Hildesheim, Germany
Steffen Rendle, University of Konstanz, Germany
Lars Schmidt-Thieme, University of Hildesheim, Germany

Compression of RDF Dictionaries

Miguel A. Martínez-Prieto, University of Valladolid, Spain
Javier D. Fernández, University of Valladolid, Spain
Rodrigo Cánovas, University of Melbourne, Australia

Efficient Matching of SPARQL Subscriptions using Rete

Haris Abdullah, Aalto University, Finland
Mikko Rinne, Aalto University, Finland
Seppo Törmä, Aalto University, Finland
Esko Nuutila, Aalto University, Finland

THU 2:10 – 3:50 SALA 300A
(SOAP-1) Service Oriented Architectures and Programming
Session Chair: Fabrizio Montesi, ItalianaSoftware, Italy

Modelling Session Types using Contracts

Giovanni Bernardi, University of Dublin, Trinity College, Ireland
Matthew Hennessy, University of Dublin, Trinity College, Ireland

Checking the Realizability of BPMN 2.0 Choreographies

Pascal Poizat, University of Evry, LRI, France
Gwen Salaün, Grenoble INP, INRIA, France

Core BPEL – Syntactic Simplification of WS-BPEL 2.0

Espen Højsgaard, IT University of Copenhagen, Denmark
Tim Hallwyl, Visma Sirius A/S, Denmark

A Flexible Approach for Service Composition using Service Patterns

Emna Fki, University of Sfax, ReDCAD, Tunisia
Mohamed Jmaiel, University of Sfax, ReDCAD, Tunisia
Chantal Soulé Dupuy, IRIT, Université de Toulouse, France
Saïd Tazi, CNRS: LAAS, France

THU 2:10 – 3:50 SALA BELVEDERE
(DTTA-2) Data Theory, Technology, and Applications
Session Chair: Junping Sun, Nova Southeastern University, USA

Reference Table Based k-Anonymous Private Blocking

Alexandros Karakasidis, University of Thessaly, Greece
Vassilios S. Verykios, Hellenic Open University, Greece

Model Management System vs. Model Driven Engineering: A Case Study

Verónica A. Bollati, Universidad Rey Juan Carlos, Spain
Paolo Atzeni, Universidad Roma Tre, Italy
Esperanza Marcos, Universidad Rey Juan Carlos, Spain
Juan M. Vara, Universidad Rey Juan Carlos, Spain

GPU Accelerated AES-CBC for Database Applications

Scott Fazackerley, University of British Columbia Okanagan, Canada
Steven M. McAvoy, University of British Columbia Okanagan, Canada
Ramon Lawrence, University of British Columbia Okanagan, Canada

Minimum Bounding Boxes for Regular Cross-Polytopes

Salman Shahid, Michigan State University, United States
Sakti Pramanik, Michigan State University, United States
Charles B. Owen, Michigan State University, United States

THU 2:10 – 3:50 SALA 300B

(EMBS-2) Embedded Systems

Session Chair: Alessio Bechini, University of Pisa, Italy

An Animation Framework for Improving the Comprehension of TinyOS Programs

Sravanthi Dandamudi, Clemson University, United States
Sally K. Wahba, Clemson University, United States
Jason O. Hallstrom, Clemson University, United States

HotDataTrap: A Sampling-Based Hot Data Identification Scheme for Flash Memory

Dongchul Park, University of Minnesota, United States
Biplob Debnath, University of Minnesota, United States
Youngin Nam, University of Minnesota, United States
David H.C. Du, University of Minnesota, United States
Youngkyun Kim, ETRI, Republic of Korea
Younghul Kim, ETRI, Republic of Korea

Kernel-Level ARINC 653 Partitioning for Linux

Sanghyun Han, Konkuk University, Republic Of Korea
Hyun-Wook Jin, Konkuk University, Republic of Korea

Affinity-Aware DMA Buffer Management for Reducing Off-Chip Memory Access

Qi Zhong, Peking University, China
Xuetao Guan, Peking University, China
Tao Huang, Peking University, China
Xu Cheng, Peking University, China
Keyi Wang, Peking University, China

TL-Tree: Flash-Optimized Storage for Time-Series Sensing Data on Sensor Platforms

Huan Li, Beihang University, China
Dong Liang, Beihang University, China
Lihui Xie, Beihang University, China
Gong Zhang, Carnegie Mellon University, United States
Krithi Ramamritham, IIT Bombay, India

**3:50 – 4:20 PALA MEETING
Coffee Break**

THU 4:20 – 6:00 SALA STAMPA

(SWA-3) The Semantic Web and Its Applications

Session Chair: Frederik Hogenboom, Erasmus University Rotterdam, Netherlands

A Configuration Management Task Ontology for Semantic Integration

Rodrigo Fernandes Calhau, Federal University of Espírito Santo, Brazil
Ricardo de Almeida Falbo, Federal University of Espírito Santo, Brazil

Sorted Hyper-Predicate Knowledge bases for Ontologies and Rules

Ken Kaneiwa, Iwate University, Japan
Philip H.P. Nguyen, Government of South Australia, Australia

f-SROIQ(G): An Expressive Fuzzy Description Logic Supporting Fuzzy Data Type Group

Li Yan, Northeastern University, China
Fu Zhang, Northeastern University, China
Z.M. Ma, Northeastern University, China

Learning Probabilistic Description Logic Concepts – Under Different Assumptions on Missing Knowledge

Pasquale Minervini, Università degli Studi di Bari "Aldo Moro", Italy
Claudia d'Amato, Università degli Studi di Bari "Aldo Moro", Italy
Nicola Fanizzi, Università degli Studi di Bari "Aldo Moro", Italy

THU 4:20 – 6:00 SALA 300A

(SOAP-2) Service Oriented Architectures and Programming

Session Chair: Ivan Lanese, Università di Bologna, Italy

Dealing with Changes in Service Orchestrations

Leandro Sales Pinto, Politecnico di Milano, Italy
Gianpaolo Cugola, Politecnico di Milano, Italy
Carlo Ghezzi, Politecnico di Milano, Italy

Profile Annotation for Adaptable Web Service Description

Chiraz El Hog, MIRACL, ISIMS, Tunisia
Raoudha Ben Djemaa, MIRACL, ISIMS, Tunisia
Ikram Amous, MIRACL, ISIMS, Tunisia

Specifying and Implementing Social Web Services Operation using Commitments

Zakaria Maamar, Zayed University, United Arab Emirates
Noura Faci, Université Lyon 1, France
Michael Luck, King's College London, United Kingdom
Salahdine Hachimi, Université Lyon 1, France

An XML-Based Protocol for Improving Trust Negotiation between Web Services

Yunxi Zhang, The University of Hull, United Kingdom
Tanko Ishaya, The University of Hull, United Kingdom

Anytime QoS Optimization over the PlanGraph for Web Service Composition

Yuhong Yan, Concordia University, Canada
Min Chen, Concordia University, Canada
Yubin Yang, Nanjing University, China

THU 4:20 – 6:00 SALA BELVEDERE

(SEC-1) Computer Security

Session Chair: Giampaolo BELLA, Universita' di Catania, Italy

An Empirical Analysis of Input Validation Mechanisms in Web Applications and Languages

Theodoor Scholte, SAP Research, France
Davide Balzarotti, Institute Eurecom, France
William Robertson, Northeastern University, United States
Engin Kirda, Northeastern University, United States

A Security Analysis of Amazon's Elastic Compute Cloud Service

Marco Balduzzi, EURECOM, France
Jonas Zaddach, EURECOM, France
Davide Balzarotti, EURECOM, France
Engin Kirda, Northeastern University, United States
Sergio Loureiro, SecludIT, France

A Linux Kernel Cryptographic Framework: Decoupling Cryptographic Keys from Applications

Nikos Mavrogiannopoulos, Katholieke Universiteit Leuven, Belgium
Miloslav Trmac, Red Hat, United States
Bart Preneel, Katholieke Universiteit Leuven, Belgium

A Visualization Tool for Evaluating Access Control Policies in Facebook-Style Social Network Systems

Mohd Anwar, University of Pittsburgh, United States
Philip W.L. Fong, University of Calgary, Canada

Collusion-Resistant Outsourcing of Private Set Intersection

Florian Kerschbaum, SAP Research, Germany

THU 4:20 – 6:00 SALA 300B

(NETS-1) Networking

Session Chair: Luca Deri, IIT-CNR, Italy

Towards Optimizing the Reliability of Real-Time Transmission in Multi-Hop Wireless LANs

Junwhan Kim, Virginia Tech, United States

Location based Routing using Smartphones in an Infrastructureless Environment

Alireza Mahdian, University of Colorado, United States
Hansu Gu, University of Colorado, United States
Sravan Thokala, University of Colorado, United States
Shivakant Mishra, University of Colorado, United States

Performance of MIMO 802.11n in Heterogeneous Deployments

Murad Abusubaih, Palestine Polytechnic University, Palestine
Mahmoud Rajabi, Palestine Polytechnic University, Palestine
Mahmood Ajloni, Palestine Polytechnic University, Palestine
Fadel Shahin, Palestine Polytechnic University, Palestine

A Real-Time Data Aggregation Method for Fault-Tolerant Wireless Sensor Networks

Peyman Teymoori, University of Tehran, Iran
Mehdi Kargahi, University of Tehran, Iran
Nasser Yazdani, University of Tehran, Iran

Friday March 30, 2012

FRI 09:00 – 10:40 SALA STAMPA

(ROBOT) Intelligent Robotic Systems

Session Chair: Denis F. Wolf, University of Sao Paulo, Brazil

Multi-Fingered Reactive Grasping with Active Guided Camera Systems

Heinz Wörn, Karlsruhe Institute of Technology, Germany
Stephan Irgenfried, Karlsruhe Institute of Technology, Germany
Thomas Haase, Karlsruhe Institute of Technology, Germany

A Two-Level Approach for Multi-Robot Coordinated Exploration of Unstructured Environments

P.G.C.N. Senarathne, Nanyang Technological University, Singapore
Danwei Wang, Nanyang Technological University, Singapore

SageRobotics: Open Source Framework for Symbolic Computation of Robot Models

Cristóvão D. Sousa, University of Coimbra, Portugal
Rui Cortesão, University of Coimbra, Portugal

Vision and GPS-Based Autonomous Vehicle Navigation using Templates and Artificial Neural Networks

Jefferson R. Souza, University of São Paulo, Brazil
Gustavo Pessin, University of São Paulo, Brazil
Gustavo B. Eboli, University of São Paulo, Brazil
Caio C.T. Mendes, University of São Paulo, Brazil
Fernando S. Osório, University of São Paulo, Brazil
Denis F. Wolf, University of São Paulo, Brazil

An Integrated Architecture for Autonomous Vehicles Simulation

José L.F. Pereira, LIACC/FEUP, Portugal
Rosaldo J.F. Rossetti, LIACC/FEUP, Portugal

FRI 09:00 – 10:40 SALA 300A

(SVT-1) Software Verification and Testing

Session Chair: Mohammad Reza Mousavi, Eindhoven University of Technology, The Netherlands

Staged Symbolic Execution
Junaid Haroon Siddiqui, University of Texas at Austin, United States
Sarfrax Khurshid, University of Texas at Austin, United States

Symbolic Execution of UML-RT State Machines
Karolina Zurowska, Queen's University, Canada
Juergen Dingel, Queen's University, Canada

Global and Local Testing from Message Sequence Charts
Delphine Longuet, LRI, Univ Paris-Sud, France

Program Slicing Enhances a Verification Technique Combining Static and Dynamic Analysis
Omar Chebaro, CEA, LIST, France
Nikolai Kosmatov, CEA, LIST, France
Alain Giorgetti, LIFC, University of Franche-Comte, INRIA, France
Jacques Julliand, LIFC, University of Franche-Comte, France

FRI 09:00 – 10:40 SALA BELVEDERE

(SEC-2) Computer Security
Session Chair: Giampaolo BELLA, Universita' di Catania, Italy

A Framework for Static Detection of Privacy Leaks in Android Applications

Christopher Mann, TU Darmstadt, Germany
Artem Starostin, TU Darmstadt, Germany

Indistinguishable Regions in Geographic Privacy

Jorge Cuellar, Siemens AG, Germany
Martín Ochoa, Siemens AG and TU Dortmund, Germany
Ruben Rios, University of Malaga, Spain

Barrier: A Lightweight Hypervisor for Protecting Kernel Integrity via Memory Isolation

Jingyu Hua, Kyushu University, Japan
Kouichi Sakurai, Kyushu University, Japan

Constroid: Data-Centric Access Control for Android

Daniel Schreckling, University of Passau, Germany
Joachim Posegga, University of Passau, Germany
Daniel Hausknecht, University of Passau, Germany

Integrity of Electronic Voting Systems: Fallacious use of Cryptography

Seda Davtyan, University of Connecticut, United States
Aggelos Kiyias, University of Connecticut, United States
Laurent Michel, University of Connecticut, United States
Alexander Russell, University of Connecticut, United States
Alexander A. Shvartsman, University of Connecticut, United States

FRI 09:00 – 10:40 SALA 300B

(NETS-2) Networking
Session Chair: Mario Freire, University of Beira Interior, Portugal

Explicitly Accommodating Origin Preference for Inter-Domain Traffic Engineering
Rolf Winter, NEC Labs Europe, Germany
Iljitsch van Beijnum, IMDEA, Germany

msocket: Multiple Stack Support for the Berkeley Socket API

Renzo Davoli, University of Bologna, Italy
Michael Goldweber, Xavier University, United States

Automatic Creation of VPN Backup Paths for Improved Resilience against BGP-Attackers
Michael Grey, Ilmenau University of Technology, Germany
Michael Rossberg, Ilmenau University of Technology, Germany
Guenter Schaefer, Ilmenau University of Technology, Germany

Spatio-Temporal Decomposition, Clustering and Identification for Alert Detection in System Logs

A. Makanju, Dalhousie University, Canada
Nur Zincir-Heywood, Dalhousie University, Canada
Evangelos E. Milios, Dalhousie University, Canada
Markus Latzel, Palomino System Innovations Inc., Canada

10:40 – 11:10 PALA MEETING
Coffee Break

FRI 11:10 – 12:50 SALA STAMPA

(EE-1) Enterprise Engineering
Session Chair: Artur Caetano, Technical University of Lisbon, Portugal

Mapping the Business Model Canvas to ArchiMate

L.O. Meertens, University of Twente, Netherlands
M.E. Jacob, University of Twente, Netherlands
L.J.M. Nieuwenhuis, University of Twente, Netherlands
M.J. Van Sinderen, University of Twente, Netherlands
H. Jonkers, BiZZdesign, Netherlands
D. Quartel, BiZZdesign, Netherlands

On the Support for the Assignment of Active Structure and Behavior in Enterprise Modeling Approaches

Rômulo Henrique Arpini, Federal University of Espírito Santo, Brazil
João Paulo A. Almeida, Federal University of Espírito Santo, Brazil

The Role of Editor in Collaborative Modeling
Peter Rittgen, Vlerick Leuven Gent Management School & University of Borås, Belgium

Knowledge Compilation for Automated Team Composition Exploiting Standard SQL

Eufemia Tinelli, Politecnico di Bari, Italy
Simona Colucci, Università della Tuscia, Italy
Eugenio Di Sciascio, Politecnico di Bari, Italy
Francesco M. Donini, Università della Tuscia, Italy

Extending Enterprise Architecture Modeling Languages: Application to Telecommunications Service Creation

Vanea Chiprianov, Institut Telecom, Telecom Bretagne, France

Yvon Kermarrec, Institut Telecom, Telecom Bretagne, France
Siegfried Rouvrais, Institut Telecom, Telecom Bretagne, France

FRI 11:10 – 12:50 SALA 300A

(SVT-2) Software Verification and Testing

Session Chair: Jun Pang, University of Luxembourg,
Luxembourg

SAILS: Static Analysis of Information Leakage with Sample

Matteo Zanioli, Ca' Foscari University of Venice and Ecole Normale Supérieure (Paris), Italy
Pietro Ferrara, ETH Zurich, Switzerland
Agostino Cortesi, Ca' Foscari University of Venice, Italy

Precise Shape Analysis using Field Sensitivity

Sandeep Dasgupta, Intel Technology India Pvt. Ltd., India
Amey Karkare, IIT Kanpur, India

On Construction of a Library of Formally Verified Low-Level Arithmetic Functions

Reynald Affeldt, National Institute of Advanced Industrial Science and Technology, Japan

Verification of a Self-Configuration Protocol for Distributed Applications in the Cloud

Gwen Salaün, Grenoble INP, INRIA, France
Xavier Etchevers, Orange Labs, France
Noel De Palma, UJF-Grenoble 1, INRIA, France
Fabienne Boyer, UJF-Grenoble 1, INRIA, France
Thierry Coupaye, Orange Labs, France

FRI 11:10 – 12:50 SALA BELVEDERE

(SEC-3) Computer Security

Session Chair: Giampaolo BELLA, Università di Catania, Italy
(TRECK-1) Trust, Reputation, Evidence and other Collaboration Know-How Computer Security

Session Chair: Carlos Ballester Lafuente, University of Geneva, Switzerland

An Efficient Security Framework for Mobile WiMAX

Mete Rodoper, Rutgers University, United States
Edward Jung, Southern Polytechnic State University, United States
Arati Baliga, AT&T Security Research Center, United States
Wade Trappe, Rutgers University, United States

Guiding Decisions on Authorization Policies: A Participatory Approach to Decision Support

Steffen Bartsch, TZI, Universität Bremen, Germany
M. Angela Sasse, University College London, United Kingdom

An Adaptive and Socially-Compliant Trust Management System for Virtual Communities

Reda Yaich, LSTI-FAYOL / ENS Mines de Saint-Etienne, France
Olivier Boissier, LSTI-FAYOL / ENS Mines de Saint-Etienne, France
Philippe Jaillon, LSTI-FAYOL / ENS Mines de Saint-Etienne, France
Gauthier Picard, LSTI-FAYOL / ENS Mines de Saint-Etienne, France

FRI 11:10 – 12:50 SALA 300B

(MCA-1) Mobile Computing and Applications

Session Chair: Hong Va Leong, The Hong Kong Polytechnic University, Hong Kong

Let EcoDrive be Your Guide: Development of a Mobile Tool to Reduce Carbon Footprint and Promote Green Transport

Farzana Rahman, Marquette University, United States
Casey O'Brien, Marquette University, United States
Kristine Manning, Marquette University, United States
Jason Cowdy, Marquette University, United States
Sheikh Iqbal Ahamed, Marquette University, United States

Framework for Building Intelligent Mobile Social Applications

Marcio E.F. Maia, Federal University of Ceará, Brazil
João Bosco F. Filho, Federal University of Ceará, Brazil
Carlos A.B. de Queiroz Filho, Federal University of Ceará, Brazil
Bruno Góis Mateus, Federal University of Ceará, Brazil
Saulo Bezerra de Aguiar, Federal University of Ceará, Brazil
Rute N.S. Castro, Federal University of Ceará, Brazil
Rossana M.C. Andrade, Federal University of Ceará, Brazil
Fredrik Toorn, Sony Ericsson, Brazil

Examining the Practical Challenges of an Augmented Reality Cyber-Infrastructure Framework

Chenjie Wei, The Ohio State University, United States
Chiu Ni Wang, The Ohio State University, United States
Rajiv Ramnath, The Ohio State University, United States
Jay Ramanathan, The Ohio State University, United States

Grid-Based Cloaking Area Creation Scheme Supporting Continuous Location-Based Services

Hyunjo Lee, Chonbuk National University, Republic Of Korea
Byeong-Seok Oh, Chonbuk National University, Republic of Korea
Hyeong-il Kim, Chonbuk National University, Republic of Korea
Jaewoo Chang, Chonbuk National University, Republic of Korea

12:50 – 2:10 PALA MEETING
Lunch Break

FRI 2:10 – 3:50 SALA STAMPA

(EE-2) Enterprise Engineering

Session Chair: Maria-Eugenia Jacob, University of Twente, The Netherlands

Enabling Personalized Visualization of Large Business Processes through Parameterizable Views

Manfred Reichert, Ulm University, Germany
Jens Kolb, Ulm University, Germany
Ralph Bobrik, Detecon AG, Germany
Thomas Bauer, Hochschule Neu-Ulm, Germany

**Keeping Decisions and Rationale Explicit in Business
Process Analysis**

Manoel Sancho da Silva Neto, UNIRIO, Brazil
Renata Mendes de Araujo, UNIRIO, Brazil

Security and Safety of Assets in Business Processes

Ganna Monakova, SAP Research, Germany
Achim D. Brucker, SAP Research, Germany
Andreas Schaad, SAP Research, Germany

**On the Exploitation of Process Mining for Security
Audits: The Conformance Checking Case**

Rafael Accorsi, University of Freiburg, Germany
Thomas Stocker, University of Freiburg, Germany

**A Software Development Kit to Implement
Integration Solutions**

Rafael Z. Frantz, UNIJUÍ University, Brazil
Rafael Corchuelo, University of Seville, Spain

FRI 2:10 – 3:50

SALA 300A

(SVT-3) Software Verification and Testing

Session Chair: Mohammad Reza Mousavi, Eindhoven University of
Technology, The Netherlands

Translating B Machines to JML Specifications

Néstor Cataño, CMU Portugal | The University of Madeira,
Portugal

Tim Wahls, Dickinson College, United States
Camilo Rueda, Pontificia Universidad Javeriana, Colombia
Victor Rivera, The University of Madeira, Portugal
Danni Yu, Dickinson College, United States

A Model Checker for Bigraphs

Gian Perrone, IT University of Copenhagen, Denmark
Søren Debois, IT University of Copenhagen, Denmark
Thomas T. Hildebrandt, IT University of Copenhagen, Denmark

**Approximate Planning and Verification for Large
Markov Decision Processes**

Richard Lassaigne, Université Paris 7, France
Sylvain Peyronnet, Université Paris-Sud XI, France

**Verification Conditions for Single-assignment
Programs**

Daniela da Cruz, Universidade do Minho, Portugal
Maria João Frade, Universidade do Minho, Portugal
Jorge Sousa Pinto, Universidade do Minho, Portugal

FRI 2:10 – 3:50 SALA BELVEDERE

**(TRECK-2) Trust, Reputation, Evidence and
other Collaboration Know-How Computer
Security**

Session Chair: Carlos Ballester Lafuente, University of Geneva,
Switzerland

**The Relation between User Intervention and User
Satisfaction for Information Recommendation**

Yoshinori Hijikata, Osaka University, Japan
Yuki Kai, Osaka University, Japan
Shogo Nishida, Osaka University, Japan

**Using Inferred Tag Ratings to Improve User-Based
Collaborative Filtering**

Qi Qi, Nanjing University, China
Zhenyu Chen, Nanjing University, China
Jia Liu, Nanjing University, China
Chengfeng Hui, Nanjing University, China
Qing Wu, Nanjing University, China

**Preference-Oriented QoS-Based Service Discovery
with Dynamic Trust and Reputation Management**

Zeinab Noorian, University of New Brunswick, Canada
Michael Fleming, University of New Brunswick, Canada
Stephen Marsh, Communications Research Centre, Canada

Subjective Review-Based Reputation

Gianpiero Costantino, CNR-IIT, Italy
Charles Morisset, CNR-IIT, Italy
Marinella Petrocchi, CNR-IIT, Italy

**Analyzing Weighting Schemes in Collaborative
Filtering: Cold Start, Post Cold Start and Power
Users**

Alan Said, TU-Berlin, Germany
Brijnesh J. Jain, TU-Berlin, Germany
Sahin Albayrak, TU-Berlin, Germany

FRI 2:10 – 3:50

SALA 300B

(MCA-2) Mobile Computing and Applications

Session Chair: Alvin Chan, The Hong Kong Polytechnic
University, Hong Kong

**A Sensor Network-Based Multiple Acoustic Source
Localization Algorithm**

Junho Ahn, University of Colorado, United States
Hojung Cha, Yonsei University, Republic of Korea

**An In-Network Approximate Data Gathering
Algorithm Exploiting Spatial Correlation in Wireless
Sensor Networks**

Chen-Che Huang, National Chiao Tung University, Taiwan
Jiun-Long Huang, National Chiao Tung University, Taiwan
Jhih-An Yan, National Chiao Tung University, Taiwan
Lo-Yao Yeh, National Center for High-Performance Computing,
Taiwan

**A Distributed Intrusion Detection Scheme for
Wireless Ad Hoc Networks**

Anderson Morais, Telecom SudParis, France
Ana Cavalli, Telecom SudParis, France

**A Density-Aware Routing Scheme in Delay Tolerant
Networks**

Chih-Lin Hu, National Central University, Taiwan
Bing-Jung Hsieh, National Central University, Taiwan

**FRIDAY 3:50PM
CONFERENCE ENDS**

SAC 2012 POSTERS LIST

**THU 10:40 - 12:50 PALA MEETING
Poster Session I**

(ASIIS) Advances in Spatial and Image- Based Information Systems

High Level Adaptive Fusion Approach: Application to Land Cover Change Prediction in Satellite Image Databases

Wadii Boulila, RIADI, ENSI, Tunisia
Karim S. Ettabaa, RIADI, ENSI, Tunisia
Imed Riadh Farah, RIADI, ENSI, Tunisia
Basel Solaiman, ITI, TELECOM-Bretagne, Tunisia

ST4SQL: A Spatio-Temporal Query Language Dealing with Granularities

Gabriele Pozzani, University of Verona, Italy
Carlo Combi, University of Verona, Italy

(BIO) Bioinformatics

Approximate Matching over Biological RDF Graphs

Roberto De Virgilio, Università Roma Tre, Italy
Simona E. Rombo, Università della Calabria, Italy

Tree-Based Search for Stochastic Simulation Algorithm

Vo Hong Thanh, University of Trento, Italy
Roberto Zunino, University of Trento and COSBI, Italy

High-Throughput Antibody Sequence Alignment based on GPU Computing

Guoli Ji, Xiamen University, China
Zhe Xiang, Xiamen University, China
Xiaohui Wu, Xiamen University, China
Shuiyuan Lin, Xiamen University, China
Meishuang Tang, Xiamen University, China
Junfeng Yao, Xiamen University, China

(CC) Cloud Computing

A Layered Coordination Framework for Optimizing Resource Allocation in Adapting Cloud-Based Applications

Patrizia Scandurra, Università degli Studi di Bergamo, Italy
Claudia Raibulet, Università degli Studi di Milano-Bicocca, Italy
Pasqualina Potena, Università degli Studi di Bergamo, Italy
Raffaella Mirandola, Politecnico di Milano, Italy
Rafael Capilla, Universidad Rey Juan Carlos, Spain

Double Dip Map-Reduce for Processing Cross Validation Jobs

Danilo Moret, Globo.com, Brazil

Karin Breitman, PUC-Rio, Brazil
Evelin Amorim, PUC-Rio, Brazil
Jose Talavera, PUC-Rio, Brazil
Ruy Milidui, PUC-Rio, Brazil
Jose Viterbo, Universidade Federal Fluminense, Brazil

(CIVIA) Computational Intelligence and Video & Image Analysis

Texture Fuzzy Segmentation using Adaptive Affinity Functions

Bruno M. Carvalho, UFRN, Brazil
Tiago S. Souza, UFRN, Brazil
Edgar Garduño, UNAM, Brazil

Effective Radical Segmentation of Offline Handwritten Chinese Characters by using an Enhanced Snake Model and Genetic Algorithm

Zhanghui Chen, Chinese Academy of Sciences, China
Baoyao Zhou, EMC Labs China,
Shan Dong, Chinese Academy of Sciences, China

Clustering Approach Algorithm for Image Interpolation

Tania Mezzadri Centeno, Federal University of Technology -
Paraná, Brazil
Márcio Teruo Akyama, Federal University of Technology - Paraná,
Brazil

(COSYS) Cooperative Systems in Heterogeneous Environments

Using Ontology-Based Methods for Implementing Role-Based Access Control in Cooperative Systems

Satyajeet Raje, The Ohio State University, United States
Chowdary Davuluri, The Ohio State University, United States
Michael Freitas, The Ohio State University, United States
Rajiv Ramnath, The Ohio State University, United States
Jay Ramanathan, The Ohio State University, United States

An Ontological Basis for Resource Representation

Yves Wautelet, Hogeschool-Universiteit Brussel, Belgium
Samedi Heng, Université catholique de Louvain, Belgium
Manuel Kolp, Université catholique de Louvain, Belgium

(CSP) Constraint Solving and Programming

Yet Another Algorithm for Generalized Voronoi Diagrams

Ioannis Emiris, University of Athens, Greece
Angelos Mantzaflaris, GALAAD, INRIA Méditerranée, France
Bernard Mourrain, GALAAD, INRIA Méditerranée, France

(DM) Data Mining

An Empirical Evaluation of Process Mining Algorithms based on Structural and Behavioral Similarities

Jianmin Wang, Tsinghua University, China
Shijie Tan, Tsinghua University, China
Lijie Wen, Tsinghua University, China
Raymond K. Wong, University of New South Wales, Australia
Qinlong Guo, Tsinghua University, China

A Common Neighbour based Two-Way Collaborative Recommendation Method

Lin Chen, Queensland University of Technology, Australia
Richi Nayak, Queensland University of Technology, Australia
Yue Xu, Queensland University of Technology, Australia

Hierarchical Confidence-Based Active Clustering

Bruno M. Nogueira, University of Sao Paulo, Brazil
Alípio M. Jorge, University of Porto, Portugal
Solange O. Rezende, University of São Paulo, Brazil

(DS) Data Streams

Trend Cluster based Interpolation Everywhere in a Sensor Network

Pietro Guccione, Politecnico di Bari, Italy
Anna Ciampi, Università degli Studi di Bari "Aldo Moro", Italy
Annalisa Appice, Università degli Studi di Bari "Aldo Moro", Italy
Donato Malerba, Università degli Studi di Bari "Aldo Moro", Italy
Angelo Muolo, Rodonea s.r.l, Italy

Improving the Offline Clustering Stage of Data Stream Algorithms in Scenarios with Variable Number of Clusters

Elaine R. Faria, University of São Paulo & Federal University of Uberlandia, Brazil
Rodrigo C. Barros, University of São Paulo, Brazil
André C.P.L.F. Carvalho, University of São Paulo, Brazil
João Gama, University of Porto, Portugal

To Be or Not To Be Real: Fractal Analysis of Data Streams from a Regional Climate Change Model

Santiago A. Nunes, University of São Paulo, Brazil
Luciana A.S. Romani, Embrapa Agriculture Informatics, Brazil
Priscila P. Coltri, University of Campinas, Brazil
Ana M.H. Avila, University of Campinas, Brazil
Sin Chou, CPTEC/INPE, Brazil
Caetano Traina, University of São Paulo, Brazil
Agma J.M. Traina, University of São Paulo, Brazil
Elaine P.M. Sousa, University of São Paulo, Brazil

(EC) Evolutionary Computing

Artificial Immune Systems: Models, Applications, and Challenges

Samir A. Mohamed Elsayed, University of Connecticut, United States
Reda A. Ammar, University of Connecticut, United States
Sanguthevar Rajasekaran, University of Connecticut, United States

A Two-Level Procedure based on Genetic Algorithms to Optimize an Aeronautical Composite Structure

Leonardo D. Chiwiacowsky, Universidade do Vale do Rio dos Sinos, Brazil
Paolo Gasbarri, Università di Roma "La Sapienza", Italy
Riccardo Monti, Università di Roma "La Sapienza", Italy
Haroldo F.C. Velho, Instituto Nacional de Pesquisas Espaciais, Brazil
Arthur T. Gómez, Universidade do Vale do Rio dos Sinos, Brazil

(IAR) Information Access and Retrieval

A Comparison of Metadata Extraction Techniques for Crowdsourced Bibliographic Metadata Management

Michael Granitzer, Know-Center GmbH & Graz University of Technology, Austria

Maya Hristakeva, Mendeley Ltd., United Kingdom
Robert Knight, Mendeley Ltd., United Kingdom
Kris Jack, Mendeley Ltd., United Kingdom

Corpus-Based Place Metadatabase Generation for Geocoding

Yoshihide Hosokawa, Gunma University, Japan
Christian Figueroa, UTFSM, Chile

(OS) Operating Systems

Experiences with Client/Server Interactions in a Reservation-Based System

Luca Abeni, University of Trento, Italy
Tadeus Prastowo, University of Trento, Italy

Reuse of JIT Compiled Code in JavaScript Engine

Sanghoon Jeon, KT innotz, Republic Of Korea
Jaeyoung Choi, Soongsil University, Republic of Korea

A Genetic Scheduler for Electric Vehicle Charging

Junghoon Lee, Jeju National University, Republic Of Korea
Hye-Jin Kim, Jeju National University, Republic of Korea
Gyung-Leen Park, Jeju National University, Republic of Korea
Eunkyeung Jae, Soongsil University, Republic of Korea
Eunseok Choi, Soongsil University, Republic of Korea

A Real-Time Operating System for Manycore Systems

Chaeseok Im, SAIT, Samsung Electronics, Republic Of Korea
Minkyu Jeong, SAIT, Samsung Electronics, Republic of Korea
Jaedon Lee, SAIT, Samsung Electronics, Republic of Korea
Seungwon Lee, SAIT, Samsung Electronics, Republic of Korea
Shihwa Lee, SAIT, Samsung Electronics, Republic of Korea

Data Sorting in Flash Memory

Chin-Hsien Wu, National Taiwan University of Science and Technology, Taiwan

(PSC) Programming for Separation of Concerns

Superimposing Roles for Design Patterns into Application Classes by Means of Aspects

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

(PL) Programming Languages

Copy Elimination on Data Dependence Graphs

Florian Brandner, INRIA - ENS de Lyon, France
Quentin Colombet, INRIA - ENS de Lyon, France

A Comparison of Two Metacompilation Approaches to Implementing a Complex Domain-Specific Language

David Broman, Linköping University, Sweden
Peter Fritzson, Linköping University, Sweden
Görel Hedin, Lund University, Sweden
Johan Åkesson, Lund University, Sweden

Portable Parallel Programs using Architecture-Aware Libraries

Fadi Zaraket, American University of Beirut, Lebanon
Mohamad Nouredine, American University of Beirut, Lebanon
Mohamed Sabra, American University of Beirut, Lebanon
Ameen Jaber, American University of Beirut, Lebanon

(RE) Requirement Engineering

Towards a Process Factory for Developing Situational Requirements Engineering Processes
Omid Jafarinezhad, Sharif University of Technology, Iran (Islamic Republic Of)
Raman Ramsin, Sharif University of Technology, Iran (Islamic Republic of)

Statechart-Based use Case Requirement Validation of Event-Driven Systems
Saurabh Tiwari, IIITDM Jabalpur, India
Atul Gupta, IIITDM Jabalpur, India

(WT) Web Technologies

Evolving and Validating Annotations in Web-Based Collaborative Environments through Ontology Matching
Angela Locoro, Università degli Studi di Genova, Italy
Viviana Mascardi, Università degli Studi di Genova, Italy
Anna Marina Scapolla, Università degli Studi di Genova, Italy

Resolving User Identities over Social Networks through Supervised Learning and Rich Similarity Features
André Nunes, Instituto Superior Técnico, Portugal
Pável Calado, Instituto Superior Técnico, Portugal
Bruno Martins, Instituto Superior Técnico, Portugal

Performance Evaluation of User-Created Open-Web Games
Navid Ahmadi, University of Lugano, Switzerland
Mehdi Jazayeri, University of Lugano, Switzerland
Alexander Repenning, University of Colorado, United States

Finding Similar Destinations with Flickr Geotags
Davide Eynard, University of Lugano, Switzerland
Alessandro Inversini, University of Lugano, Switzerland
Leonardo Gentile, Politecnico di Milano, Italy

**THU 2:30 - 5:30 PALA MEETING
Poster Session II**

(CM) Coordination Models, Languages and Applications

A Secure Coordination of Agents with Nonmonotonic Soft Concurrent Constraint Programming
Stefano Bistarelli, Università di Perugia, Italy
Paola Campli, Università G. d'Annunzio, Italy
Francesco Santini, Centrum Wiskunde & Informatica Amsterdam, Netherlands

Instance-Aware Assemblies of Services in Pervasive Computing
Linus Åkesson, Lund University, Sweden
Sven Gestegård Robertz, Lund University, Sweden
Görel Hedin, Lund University, Sweden
Boris Magnusson, Lund University, Sweden

Dynamic Composition of Coordination Abstractions for Pervasive Systems: The Case of LogOp
Ronaldo Menezes, Florida Institute of Technology, United States

Andrea Omicini, Università di Bologna, Italy
Mirko Viroli, Università di Bologna, Italy

A Coordination-Based Access Control Model for Space-Based Computing
Stefan Craß, Vienna University of Technology, Austria
Eva Kühn, Vienna University of Technology, Austria

(DE) Document Engineering

Row Manipulation in the Heterogeneous Tabular Forms with a Hexadecimal Grid Graph Model
Shinji Koka, Nihon University, Japan
Koichi Anada, Waseda University, Japan
Kenshi Nomaki, Nihon University, Japan
Yuki Shindo, Nihon University, Japan

(SE) Software Engineering

An Analysis of Anti-Micro-Patterns Effects on Fault-Proneness in Large Java Systems
Giuseppe Destefanis, University of Cagliari, Italy
Roberto Tonelli, University of Cagliari, Italy
Giulio Concas, University of Cagliari, Italy
Michele Marchesi, University of Cagliari, Italy

A Case Study in the use of Groovy and Grails
Karen Malone, National University of Ireland, Galway, Ireland
Josephine Griffith, National University of Ireland, Galway, Ireland

Designing Architectures from Problem Descriptions by Interactive Model Transformation
Azadeh Alebrahim, University Duisburg-Essen, Germany
Isabelle Côté, University Duisburg-Essen, France
Maritta Heisel, University Duisburg-Essen, Germany
Christine Choppy, University Paris 13, Germany
Denis Hatebur, Institut für technische Systeme GmbH, Germany

Investigating Fault Prediction Capabilities of Five Prediction Models for Software Quality
Deepak Banthia, IIITDM, Jabalpur, India
Atul Gupta, IIITDM, Jabalpur, India

(DTTA) Database Theory, Technology and Applications

Metrics for Approximate Query Engine Evaluation
Francesco Di Tria, Università degli Studi di Bari Aldo Moro, Italy
Ezio Lefons, Università degli Studi di Bari Aldo Moro, Italy
Filippo Tangorra, Università degli Studi di Bari Aldo Moro, Italy

An Active XML-Based Framework for Integrating Complex Data
Rashed Salem, Université de Lyon (ERIC - Lyon2), France
Omar Boussaid, Université de Lyon (ERIC - Lyon2), France
Jérôme Darmont, Université de Lyon (ERIC - Lyon2), France

Autonomous Re-Indexing
Eduardo Morelli, PUC-Rio, Brazil
José Maria Monteiro, Universidade Federal do Ceará - UFC, Brazil
Ana Almeida, PUC-Rio, Brazil
Sérgio Lifschitz, PUC-Rio, Brazil
Javam Machado, Universidade Federal do Ceará - UFC, Brazil

(EE) Enterprise Engineering

Dynamic Guidance Enhancement in Workflow Management Systems

Christoph Günther, University of Bayreuth, Germany
Stefan Schönig, University of Bayreuth, Germany
Stefan Jablonski, University of Bayreuth, Germany

Model Transformations for Business-IT Alignment: From Collaborative Business Process to SoaML Service Model

Andrea Delgado, University of the Republica, Uruguay
Francisco Ruiz, University of Castilla-La Mancha, Spain
Ignacio García-Rodríguez de Guzmán, University of Castilla-La Mancha, Spain
Mario Piattini, University of Castilla-La Mancha, Spain

Can Business Process Modeling Bridge the Gap between Business and Information Systems?

Liping Zhao, The University of Manchester, United Kingdom
Keletso Letsholo, The University of Manchester, United Kingdom
Erol-Valeriu Chioasca, The University of Manchester, United Kingdom
Sandra Sampaio, The University of Manchester, United Kingdom
Pedro Sampaio, The University of Manchester, United Kingdom

Analysis of Heuristics to Identify Crosscutting Concerns in Business Process Models

Fabiana Jack Nogueia Santos, UNIRIO, Brazil
Claudia Cappelli, UNIRIO, Brazil
Flávia Santoro, UNIRIO, Brazil
Julio Cesar Sampaio do Prado Leite, PUC-Rio, Brazil
Thaís Vasconcelos Batista, UFRN, Brazil

(EMBS) Embedded Systems

Using Faults for Buffer Overflow Effects

Pierre-Alain Fouque, École Normale Supérieure, France
Delphine Lerestoux, DGA Information Superiority, France
Frédéric Valette, DGA Information Superiority, France

Formal Security Policy Models for Smart Card Evaluations

Gerd Beuster, Fachhochschule Wedel, Germany
Karin Greimel, NXP Semiconductors Austria GmbH, Austria

PRAM Wear-Leveling Algorithm for Hybrid Main Memory based on Data Buffering, Swapping, and Shifting

Sung Kyu Park, KAIST, Republic Of Korea
Hyunchul Seok, KAIST, Republic of Korea
Dong-Jae Shin, KAIST, Republic of Korea
Kyu Ho Park, KAIST, Republic of Korea

(MCA) Mobile Computing and Applications

Query Execution on a Mobile Database System

Abdel Obaid, Université of Quebec at Montreal, Canada
Anne Marie Amja, Université of Quebec at Montreal, Canada
Hafedh Mili, Université of Quebec at Montreal, Canada
Normand Seguin, Université of Quebec at Montreal, Canada

MobiSpatial: Open Source Enabled Mobile Spatial Interaction

Junjun Yin, Dublin Institute of Technology, Ireland
James D. Carswell, Dublin Institute of Technology, Ireland

Topological Inference through Mobile Devices

Marco Antero Paiva, University of Porto, Portugal
Marcelo Petry, University of Porto, Portugal
Rosaldo J.F. Rossetti, University of Porto, Portugal

(MMV) Multimedia and Visualization

Toward a Visual Pedometer

Dawei Liu, Macao Polytechnic Institute, Macao
Qi Shan, University of Washington, United States
Dan Wu, GuangDong Electric Power Design Institute, China

Scalable Depth Map Coding for 3D Video using Contour Information

Jinmi Kang, Pusan National University, Republic Of Korea
Hyejeong Jeong, Pusan National University, Republic of Korea
Kidong Chung, Pusan National University, Republic of Korea

Evaluating Force-Directed Algorithms with a New Framework

Maolin Huang, University of Technology Sydney, Australia
Weidong Huang, CSIRO ICT Centre, Australia
Chun-Cheng Lin, National Chiao Tung University, Taiwan

(NETS) Networking

Towards a Passive DNS Monitoring System

Luca Deri, IIT-CNR, Italy
Lorenzo Luconi Trombacchi, IIT-CNR, Italy
Maurizio Martinelli, IIT-CNR, Italy
Daniele Vannozi, IIT-CNR, Italy

Performance Analysis of IEEE 802.11 IBSS Power Save Mode using a Discrete-Time Markov Model

Pravati Swain, Indian Institute of Technology Guwahati, India
Sandip Chakraborty, Indian Institute of Technology Guwahati, India
Sukumar Nandi, Indian Institute of Technology Guwahati, India
Purandar Bhaduri, Indian Institute of Technology Guwahati, India

S2S: A Peer to Peer Protocol for Participative Sensing

Paola Salomoni, University of Bologna, Italy
Ludovico Antonio Muratori, University of Bologna, Italy
Giovanni Pau, University of California Los Angeles, United States
Marco Magnani, University of Bologna, Italy

(SWA) The Semantic Web and Its Applications

BOwL: Exploiting Boolean Operators and Lesk Algorithm for Linking Ontologies

Viviana Mascardi, Università di Genova, Italy
Angela Locoro, Università di Genova, Italy

Intention based Semantic Approach for Service Sourcing

Ikbel Guidara, University of Sfax, Tunisia
Tarak Chaari, University of Sfax, Tunisia
Kaouthar Fakhfakh, University of Sfax, Tunisia

Web 3.0 in Action: Vector Space Model for Semantic (Movie) Recommendations

Roberto Mirizzi, Politecnico di Bari, Italy
Tommaso Di Noia, Politecnico di Bari, Italy
Eugenio Di Sciascio, Politecnico di Bari, Italy

**(SOAP) Service-Oriented Architecture
and Programming**

**A Three Step based Approach for Web Service
Adaptation**

Yehia Taher, ERISS - Tilburg University, Netherlands
Willem-Jan van den Heuvel, ERISS - Tilburg University,
Netherlands
Michael Parkin, ERISS - Tilburg University, Netherlands

**Service-Oriented Paradigm for Analyzing
Hydrological Processes**

Milan Gocic, University of Nis, Serbia
Dragan Stojanovic, University of Nis, Serbia

**Application Engineering of Service-Based Software
Product Lines**

Paulo Queiroz, UFERSA, Brazil
Rosana Braga, USP, Brazil

Creating Mobile ad hoc Workflows with Twitter

Martin Treiber, Vienna University of Technology, Austria
Daniel Schall, Vienna University of Technology, Austria
Schahram Dustdar, Vienna University of Technology, Austria
Christian Scherling, ikangai solutions, Austria

**(TRECK) Trust, Reputation, Evidence and
other Collaboration Know-How**

Area Diversity in Computer Science Collaborations

Pramod Divakarmurthy, Florida Institute of Technology, United
States
Ronaldo Menezes, Florida Institute of Technology, United States

**A Provenance Approach to Assess the Quality of
Geospatial Data**

Joana E.G. Malaverri, IC-UNICAMP, Brazil
Claudia Bauzer Medeiros, IC-UNICAMP, Brazil
Rubens Camargo Lamparelli, CEPAGRI-UNICAMP, Brazil

(ROBOT) Intelligent Robotic Systems

**Philos: A Sociable Robot for Human Robot
Interactions and Wireless Health Monitoring**

Kenneth Hornfeck, Case Western Reserve University, United
States
Yan Zhang, Case Western Reserve University, United States
Kiju Lee, Case Western Reserve University, United States

SAC 2013 INVITATION

The next SAC conference will be held in Coimbra, Portugal, in March, 2013. SAC 2013 is hosted by the Institute of Engineering of the Polytechnic Institute of Coimbra (ISEC-IPC). Please check the registration desk for handouts. You can also visit the website at <http://www.acm.org/conferences/sac/sac2013/>.

We hope to see you there!