the second International Conference on Distributed Event-Based Systems

- preliminary program -

July 1\textsuperscript{st} - 4\textsuperscript{th}, 2008
Rome - Italy

University of Rome ‘La Sapienza’

Dipartimento di Informatica e Sistemistica “Antonio Ruberti”

http://debs08.dis.uniroma1.it

sponsored by
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<td>9.00 am</td>
<td>The OMG distribution service for real-time systems part I</td>
<td>Keynote: Alexander L. Wolf</td>
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<td>Session 1 Content-based publish-subscribe</td>
<td>Session 6 Event processing middleware</td>
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<td>Lunch Tutorial: Filtering and synchronization</td>
<td>Lunch Tutorial: Event processing middleware and state of the art and research directions part I</td>
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<td>Event processing architecture and patterns</td>
<td>Large-scale publish-subscribe systems: state of the art and research directions part I</td>
<td>Large-scale publish-subscribe systems: state of the art and research directions part II</td>
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<td>Session 3 Event processing in sensor networks and runtime environments</td>
<td>Session 4 Complex event processing and streaming queries</td>
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<td>Access control in publish/subscribe systems</td>
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Note: The schedule includes sessions, keynotes, breaks, and social events.
Tuesday – 1st July

08,00 am – 10,00 am
Registration

08,30 am – 7.00 pm
All tutorials will take place on July 1st in two parallel tracks

08,30 am – 6,00 pm
Workshop esteem

Track I

08,30 am – 10,00 am
The OMG Data Distribution Service for Real-Time Systems Part I
Angelo Corsaro (PrismTech)

10,00 am – 10,30 am
Coffee Break

10,30 am – 12,00 pm
The OMG Data Distribution Service for Real-Time Systems Part II
Angelo Corsaro (PrismTech)

12,00 pm – 1,30 pm
Lunch Break

1,30 pm – 3,00 pm
Event Processing – Architecture and patterns
Opher Etzion (IBM)

3,00 pm – 3,30 pm
Coffee Break

3,30 pm – 5,30 pm
CEP: Functionality, Technology and Contex
Dieter Gawlick (Oracle), Shailendra Mishra (Oracle)
Track II

08,30 am – 10,00 am
Events and Streams: Harnessing and Unleashing Their Synergy Part I
Sharma Chakravarthy (University of Texas at Arlington, Computer Science and Engineering Department)

10,00 am – 10,30 am
Coffee Break

10,30 am – 12,00 pm
Events and Streams: Harnessing and Unleashing Their Synergy Part II
Sharma Chakravarthy (University of Texas at Arlington, Computer Science and Engineering Department)

12,00 pm – 1,30 pm
Interest clustering techniques for efficient event routing in large-scale settings
Leonardo Querzoni (Sapienza University of Rome, Department of Computer and Systems Sciences)

1,30 pm – 3,00 pm
Large-scale publish-subscribe systems: state of the art and research directions Part I
Peter Triantafillou (University of Patras, Department of Computer Engineering and Informatics), Anne-Marie Kermarrec (INRIA Rennes, Bretagne Atlantique)

3,00 pm – 3,30 pm
Coffee Break

3,30 pm – 5,00 pm
Large-scale publish-subscribe systems: state of the art and research directions Part II
Peter Triantafillou (University of Patras, Department of Computer Engineering and Informatics), Anne-Marie Kermarrec (INRIA Rennes, Bretagne Atlantique)

5,00 pm – 5,30 pm
Coffee Break

5,30 pm – 7,00 pm
Access Control in Publish/Subscribe Systems
Jean Bacon (University of Cambridge, Computer Laboratory), David Eyers (University of Cambridge, Computer Laboratory), Jatinder Singh (University of Cambridge, Computer Laboratory) and Peter Pietzuch (Imperial College London, Department of Computing)

6,00 pm – 7,00 pm
Registration

6,30 pm – 8,30 pm
Welcome Reception
Wednesday – 2nd July

08,30 am – 09,00 am
Welcome from the Chairs

09,00 am – 10,00 am
Keynote: Has the time finally arrived for content-based networking
  Alexander L. Wolf (Imperial College London)

10,00 am – 10,30 am
Coffee Break

10,30 am – 11,30 am
Session 1: Content-based pub/sub
- Extending Siena to support more expressive and flexible subscriptions
  John Keeney (Trinity College Dublin, Ireland), David Lewis (Trinity College Dublin, Ireland), Dominik Roblek (Trinity College Dublin, Ireland), D O'Sullivan (Trinity College Dublin, Ireland) and Dominic Jones (Trinity College Dublin, Ireland)
- Dynamic Content-based Channels: Meeting in the Middle
  Sasu Tarkoma (Helsinki University of Technology, Finland)

11,30 am – 1,00 pm
Session 2: Filtering and synchronization
- Event Dissemination via Group-Aware Stream Filtering
  Ming Li (Dartmouth College, USA) and David Kotz (Dartmouth College, USA)
- Bloom Filter Based Routing for Content-Based Publish/Subscribe
  Zbigniew Jerzak (TU Dresden, Germany) and Christof Fetzer (TU Dresden, Germany)
- A Synchronization Protocol For Supporting Peer-to-Peer Multiplayer Online Games in Overlay Networks
  Stefano Ferretti (University of Bologna, Italy)

1,00 pm – 2,15 pm
Lunch

2,15 pm – 3,45 pm
Session 3: Event processing in sensor networks and runtime environments
- Event Detection in Sensor Networks for Modern Oil Fields (Industrial paper)
  Matthew Hill (IBM Research, Hawthorne, USA), Yuan-Chi Chang (IBM Research, Hawthorne, USA), Vijay Iyengar (IBM Research, Hawthorne, USA) and Murray Campbell (IBM Research, Hawthorne, USA)
- Event-based Constraints for Sensornet Programming
  Mert Akdere (Brown University, USA), Ugur Cetintemel (Brown University, USA), John Jannotti (Brown University, USA) and Jie Mao (Brown University, USA)
- Advanced Event Processing and Notifications in Service Runtime Environments
  Anton Michlmayr (Technical University of Vienna, Austria), Florian Rosenberg (Technical University of Vienna, Austria), Philipp Leitner (Technical University of Vienna, Austria) and Schahram Dustdar (Technical University of Vienna, Austria)
Coffee Break and Demonstrations (TBC):

- **Service-Oriented Agent Architecture for Financial Customer Relationship Management**
  Wen-chih Tsai (National Chiao Tung University, Taiwan) and An-Pin Chen (National Chiao Tung University, Taiwan)

- **Efficient Uncertainty Management in Complex Event Systems**
  Segev Wasserkrug (IBM Haifa Research Lab, Israel), Opher Etzion (IBM Haifa Research Lab, Israel), Avigdor Gal (Technion, Israel Institute of Technology) and Yulia Turchin (Technion, Israel Institute of Technology)

- **Service Oriented Architecture for Heterogeneous and Dynamic Sensor Networks**
  Jérémie Leguay (Thales Communications France), Mario Lopez-Ramos (Thales Communications France), Kathryn Jean-Marie (Thales Communications France) and Vania Conan (Thales Communications France)

- **A Framework for Performance Evaluation of Complex Event Processing Systems**
  Marcelo Mendes (University of Coimbra, Portugal), Pedro Bizarro (University of Coimbra, Portugal) and Paulo Marques (University of Coimbra, Portugal)

4,45 pm – 6,15 pm
Session 4: **Reasoning and complex event detection**

- **Top-k/w Publish/Subscribe: Finding k Most Relevant Publications in Sliding Time Window**
  Kresimir Pripuzic (University of Zagreb, Croatia) and Ivana Podnar (University of Zagreb, Croatia), Zarko (EPFL, CH) and Karl Aberer (EPFL, CH)

- **Unification of Geospatial Reasoning, Temporal Logic, & Social Network Analysis in Event-based Systems (Industrial paper)**
  Jans Aasman (Franz, Inc., USA) and Steve Sears (Franz, Inc., USA)

- **Relative Temporal Constraints in the Rete Algorithm for Complex Event Detection**
  Karen Walzer (SAP AG, Germany) and Tino Breddin (SAP AG, Germany)

6,20 pm – 7,40 pm
Business Meeting
Thursday – 3rd July

08,30 am – 10,00 am
Session 5: Availability and reliability of event-based systems

- An Adaptive Approach for Ensuring Reliability in Event Based Middleware
  Shruti Mahambre (IIT Bombay, India) and Umesh Bellur (IIT Bombay, India)

- Availability Models for Underlay Aware Overlay Networks
  Madhu Kumar S. D (IIT Bombay, India) and Umesh Bellur (IIT Bombay, India)

- Replica Placement for High Availability in Distributed Stream Processing Systems
  Thomas Repantis and Vana Kalogeraki (University of California, Riverside, USA)

10,00 am – 10,30 am
Coffee Break

10,30 am – 12,00 pm
Session 6: Event processing middleware

- WebLogic Event Server: A Lightweight, Modular Application Server for Event Processing (Industrial paper)
  Seth White (Bea Systems, USA), Alexandre Alves (Bea Systems, USA) and David Rorke (Bea Systems, USA)

- TOPS – A New Design for Transactions in Publish/Subscribe Middleware
  Yosef Shatsky (Open University, Israel) and Ehud Gudes (Open University, Israel)

- Industry Paper: a scalable grid based application platform for high volumes of transactional event driven processes (Industrial paper)
  Elena Pasquali (WareLite Ltd, UK) and Daniel Grazioli (WareLite Ltd, UK)

12,00 pm – 1,00 pm
Keynote: Towards trustworthy ICT service infrastructures
  Jacques Bus (Head of Unit, - Security (ICT Programme) DG Information Society and Media, European Commission)

1,00 pm – 2,15 pm
Lunch

2,15 pm – 3,45 pm
Panel Discussion: Security issues in Event Based Infrastructures as seen from European Technology Platforms
Chair: Jacques Bus
Participants:
  Neeraj Suri, Technical University Darmstadt (ETP Artemis)
  Reijo Savola, VTT, Finland (ETP eMobility)
  Mike Surridge, IT Innovation, UK (ETP NEM)
  Pascal Bisson, Thales, France (ETP NESSI)
Organizers: James Clarke (Waterford Institute of Technology, Ireland), Alkis Konstantellos (EU Commission), Angelo Marino (EU Commission), Thomas Skordas (EU Commission)
3,45 pm – 4,45 pm

Coffee Break and Demonstrations (TBA)

4,45 pm – 6,15 pm

Fast Abstract: (To be confirmed)

- Publish/Subscribe-based Cluster and Routing Algorithm for Actuator and Sensor Networks
  Jan Hendrik Schönheir (Communication and Operating Systems Group, Germany), Helge Parzyjegla (Berlin Institute of Technology, Germany), Gero Mühl (Berlin Institute of Technology, Germany)

- BCE-Processor: Boost Up Event Processing for Large-scale Sensor-rich Ubiquitous Environment
  Jinwon Lee (Computer Science, KAIST, South Korea), Youngki Lee (Computer Science, KAIST, South Korea), Seungwo Kang (Computer Science, KAIST, South Korea), SangJeong Lee (Computer Science, KAIST, South Korea), Junehwa Song (Computer Science, KAIST, South Korea)

- Context-Dependent Event Detection in Sensor Networks
  Scarlet Schwiderski-Grosche (Royal Holloway, University of London, UK)

- On the Challenges in Event Delivery
  Haggai Roitman (Technion, Israel), Avigdor Gal (Technion, Israel), Louiqa Raschid (University of Maryland, USA)

- Combining Discriminant Analysis and Neural Networks for Fraud Detection on the Base of Complex Event Processing
  Alexander Widder (simple fact AG, Germany), Rainer v. Ammon (Centrum für Informations-Technologie Transfer GmbH, Germany), Philippe Schaeffer (TÜV Rheinland Secure IT GmbH, Germany), Christian Wolff (Media Computing, University of Regensburg, Germany)

- Event-Driven Business Process Management
  Christian Wolff (Universität Regensburg, Germany), Rainer v. Ammon (Centrum für Informations-Technologie Transfer GmbH, Germany), Christoph Emmerlsberger (Centrum für Informations-Technologie Transfer GmbH, Germany), Torsten Greiner (Teambank AG Nürnberg, Germany), Adrian Paschke (Technical University Dresden BioTec, Florian Springer (Centrum für Informations-Technologie Transfer GmbH, Germany)

- A Suitable Programming Model for e-Science Workflows?
  Beth Plale (Indiana University, USA), Chathura Herath (Indiana University, USA), Rahul Ramachandran (University of Alabama Huntsville USA)

- Stratified implementation of event processing network
  Ayelet Biger (One Software Technologies), Opher Etzion (IBM Haifa, Israel), Yuri Rabinovich (IBM Haifa, Israel)

- Event-based integration using on-the-fly matching
  Anders Moen Hagalisletto (Birkeland Innovation, Norwegian Computing Center), Steinar Kristoffersen (Østfold University College, Halden)

- Policy-based Management of Semantic Clustering
  Dominic Jones (Knowledge & Data Engineering Group (KDEG) – Trinity College Dublin, Ireland), John Keeney (Knowledge & Data Engineering Group (KDEG) – Trinity College Dublin, Ireland), David Lewis (Knowledge & Data Engineering Group (KDEG) – Trinity College Dublin, Ireland), Declan O'Sullivan (Knowledge & Data Engineering Group (KDEG) – Trinity College Dublin, Ireland)

- Design Patterns for Complex Event Processing
  Adrian Paschke (Technical University Dresden, Germany)

7,00 pm - Social Event
08.30 am – 10.00 am
Fast Abstract: (To Be Confirmed)

- Event Diffusion in Wireless Mesh Networks using Random Linear Network Coding
  Roberto Beraldi (DIS - Università di Roma “La Sapienza”), Aurelio Forese (DIS - Università di Roma “La Sapienza”), Hussein M. Alnuweiri (Texas A&M University, Qatar)

- Discovery services in the future generation of mobile networks
  Younès EL BOUZEKRI EL IDRISSI (ENSIAS, Mohamed V University, Morocco)

- Experimental Evaluation of Ubiquitous Systems. Why and how to reduce WiFi communication range
  Marc-Olivier Killijian (LAAS-CNRS Université de Toulouse, France), David Powell (LAAS-CNRS Université de Toulouse, France), M. Roy (LAAS-CNRS Université de Toulouse, France) and G. Séverac (LAAS-CNRS Université de Toulouse, France)

- FADA: Formalisms and Algorithms for Resilient Services Design in Ambient Systems
  Matthieu Roy (LAAS-CNRS Université de Toulouse, France), Marc-Olivier Killijian (LAAS-CNRS Université de Toulouse, France), Leonardo Querzoni (University of Roma, Italy), Sara Tucci Piergiovanni (University of Roma, Italy), Silvia Bonomi (University of Roma, Italy), François Bonnet (IRISA, France)

- Spatio-Temporal Reasoning with Composite Events Mobile Systems
  Scarlet Schwiderski-Grosche (Royal Holloway, University of London, UK)

- CAPS: Content-based Publish/Subscribe services for peer-to-peer systems
  Jordi Pujol Ahulló (Universitat Rovira i Virgili, Spain)

- Towards Data Driven Declarative Networking in Delay Tolerant Networks
  Eiko Yoneki (University of Cambridge, UK)

- Gravity: An Interest-Aware Publish/Subscribe System Based on Structured Overlays
  Sarunas Girdzijauskas (EPFL, Switzerland), Gregory Chockler (IBM Research, Israel), Roie Melamed (IBM Research, Israel), Yoav Tock (IBM Research, Israel)

- On Context-Aware Publish-Subscribe
  Gianpaulo Cugola (Politecnico di Milano, Italy), Matteo Migliavacca (Politecnico di Milano, Italy)

- MAMBO: Membership-Aware Multicast with Bushiness Optimisation
  Lu Fan (University, Edinburgh, UK), Phil Trinder (University, Edinburgh, UK), Hamish Taylor (University, Edinburgh, UK)

10.00 am – 10.30 am
Coffee Break

10.30 am – 11.30 am
Keynote: Meeting the Challenges of Mission-Critical Distributed Event-Based Systems with QoS-enabled Middleware and Model Driven Engineering
Douglas C. Schmidt (Vanderbilt University)
11,30 am – 1,00 pm
Session 7: **Modeling event based systems**

- **A Metamodel for Distributed Event Based Systems**
  Rolando Blanco (David R. Cheriton School of Computer Science University of Waterloo, Canada), Jun Wang (David R. Cheriton School of Computer Science University of Waterloo, Canada) and Paulo Alencar (David R. Cheriton School of Computer Science University of Waterloo, Canada)

- **Distributed Automatic Service Composition**
  Songlin Hu (Chinese Academy of Sciences, China), Vinod Muthusamy (University of Toronto, Canada) and Arno Jacobsen (University of Toronto, Canada)

- **Semantics of Dynamic Structure Event-Based Systems**
  Fernando Barros (Universidade de Coimbra, Portugal)

1,00 pm – 2,15 pm
Lunch

2,15 pm – 4,00 pm
Session 8: **Complex event processing and streaming queries**

- **Complex Event Processing Over Uncertain Data**
  Segev Wasserkrug (IBM Haifa Research Lab, Israel), Avigdor Gal (Technion, Israel Institute of Technology), Yulia Turchin (Technion, Israel Institute of Technology) and Opher Etzion (IBM Haifa Research Lab, Israel)

- **Speculative Out-Of-Order Event Processing with Software Transaction Memory**
  Andrey Brito (TU Dresden, Germany), Christof Fetzer (TU Dresden, Germany), Heiko Sturzrehm (University of Neuchatel, CH) and Pascal Felber (University of Neuchatel, CH)

- **Real-Time, Load-Adaptive Processing of Continuous Queries Over Data Streams**
  Dhananjay Kulkarni (Boston University, USA) and Chinya Ravishankar (University of California, Riverside, USA)

- **On Static Determination of Temporal Relevance for Incremental Evaluation of Complex Event Queries**
  François Bry (University of Munich, Germany) and Michael Eckert (University of Munich, Germany)

4,00 pm – 4,45 pm
Conclusion from the Chairs