



The Fifth International Conference on Application of Concurrency to System Design



1st Call for Participation

The electronic registration service will be online soon

- chair
- Jörg Desel (Katholische Universität Eichstätt-Ingolstadt, Germany), program committee co-chair
 - Yosinori Watanabe (Cadence, USA), program committee co-chair

Dates and Venue

6th of June 2005, IFSIC, University of Rennes 1, Campus de Beaulieu, Rennes, France: Satellite workshop MOMPES 2005.

7-9th of June 2005, Palais du Grand Large, St Malo, France : ACSD 2005

Steering Committee

- A. Yakovlev (U. of Newcastle upon Tyne, UK), Chair
- J. Cortadella (U. Politecnica de Catalunya, Spain)
- J. Desel (Katholische Univ. Eichstätt, Germany)
- A. Kondratyev (Cadence, USA)
- L. Lavagno (Politecnico di Torino, Italy)
- A. Valmari (Tampere Univ. of Technology, Finland)

Conference Focus

The International Conference on Application of Concurrency to System Design (ACSD) serves as a forum for disseminating theoretical results and advanced methods and tools for the design of complex concurrent systems. While there are already quite a few success stories in the field, there is still a strong need to bring theory and practice closer together. The conference aims at cross-fertilizing both types of research on the following topics:

- Methods for design of synchronous or asynchronous systems based on models of concurrency (data-flow, communicating automata, Petri nets, process algebras, statecharts, MSCs etc.).
- Correct-by-construction design methods and integration of verification techniques with the design process.
- Synchronous / asynchronous design and communication interfaces: Globally Asynchronous Locally Synchronous systems.
- Hardware / software co-design from common specifications.
- Concurrency issues in Systems on Chips (in particular, use of formal methods for communication protocol design and verification).

Chairs

- Benoît Caillaud (IRISA / INRIA Rennes), general

Program Committee

- Jörg Desel (Katholische Universität Eichstätt-Ingolstadt, Germany), co-chair
- Yosinori Watanabe (Cadence, USA), co-chair
- D.K. Arvind (U. of Edinburgh, Scotland)
- Twan Basten (Eindhoven University of Technology, The Netherlands)
- Jonathan Billington (U. of South Australia, Australia)
- Marius Bozga (VERIMAG, France)
- Franck van Breugel (York University, Canada)
- Manfred Broy (Technische Universität München, Germany)
- Paul Caspi (VERIMAG, France)
- Wemer Damm (Universität Oldenburg, Germany)
- Heiko Dörr (DaimlerChrysler Research, Germany)
- Stephen Edwards (Columbia University, USA)
- Javier Esparza (Universität Stuttgart, Germany)
- Ursula Goltz (Technische Universität Braunschweig, Germany)
- Radu Grosu (SUNY at Stony Brook, USA)
- Thomas Henzinger (EPFL Lausanne, Switzerland)
- Ryszard Janicki (McMaster University, Canada)
- Kurt Jensen (U. of Aarhus, Denmark)
- Bengt Jonsson (Uppsala University, Sweden)
- Mark Josephs (London South Bank University, England)
- Sri Kanajan (General Motors Research, USA)
- Michael Kishinevsky (INTEL, USA)
- Erwin de Kock (Philips Research, The Netherlands)
- Robert Kurshan (Cadence, USA)
- Luciano Lavagno (Politecnico di Torino, Italy)
- Johan Lilius (TUCS and Aabo Akademi University,



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Finland)

- Ricardo Machado (Universidade do Minho, Portugal)
- Mirosław Malek (Humboldt-Universität zu Berlin, Germany)
- John Moondanos (INTEL, USA)
- Laure Petrucci (Université Paris Nord, France)
- Jan Rabaey (University of California at Berkeley, USA)
- Anders Ravn (Aalborg University, Denmark)
- Enric Pastor (Universitat Politècnica de Catalunya, Spain)
- Wojciech Penczek (Polish Academy of Science and University of Podlasie, Poland)
- P.S. Thiagarajan (National University of Singapore)
- Antti Valmari (Tampere University of Technology, Finland)
- Alex Yakovlev (University of Newcastle upon Tyne, England)
- Tomohiro Yoneda (National Institute of Informatics, Japan)
- Qiang Zhu (Fujitsu Labs, Japan)
- Wlodek Zuberek (Memorial University of Newfoundland, Canada)

Organizing Committee

- Edith Blin-Guyot (IRISA / INRIA Rennes), *finance and registration*
- [Benoît Caillaud](#) (IRISA / INRIA Rennes), *general chair*
- Myriam David (IRISA / INRIA Rennes), *local arrangements*
- [Loïc Hérouët](#), (IRISA / INRIA Rennes), *web pages, communication*
- [Hervé Marchand](#), (IRISA / INRIA Rennes), *tool demos*
- [Laure Petrucci](#), (LIPN / Univ. Paris Nord), *satellite event*
- [Sophie Pinchinat](#), (IRISA / Univ. Rennes 1), *travel and tourism*

Sponsoring and Cooperation

The event is organized in cooperation with [ACM SIGDA](#) and [SIGSOFT](#). It is sponsored by the French National Institute for Research in Computer Science and Control (INRIA), the University of Rennes 1, the Michel Métivier Foundation, the Regional Council of Brittany, *le Conseil Général d'Ille et Vilaine*, and *Rennes Métropole*.

Proceedings

Proceedings are published by IEEE Computer Society Press.

Satellite workshop

The 2nd International Workshop on Model-Based Methodologies for Pervasive and Embedded Software (MOMPES 2005) will take place in Rennes on the 6th of June: <http://www.di.uminho.pt/~mompes/>

Tool Demos

Tool demonstrations will be organized in parallel with the sessions. Internet access will be provided (both Wifi and Ethernet). Please contact [Hervé Marchand](mailto:Herve.Marchand@irisa.fr) <Herve.Marchand@irisa.fr>.

Registration

Registration forms are available online on the conference web pages: <http://acsd2005.irisa.fr/>. Registration fees are detailed below. Reduced fees are offered to students.

	MOMPES workshop (6 June, Rennes) (1)	ACSD conference (7-9 June) (2)		MOMPES + ACSD package (6-9 June) (3)	
		Until 30/04/05	After 01/05/05	Until 30/04/05	After 01/05/05
Academic /Industrial (4)	80 €	400 €	500 €	450 €	560 €
Student (5)	80 €	270 €	340 €	320 €	400 €
Extra social event (6)		65 €			
Extra proceedings		40 €			

(1) : Access to all workshop sessions of the day, lunch, coffee breaks, the MOMPES workshop proceedings

(2) : Access to all conference sessions, 3 lunches, coffee breaks, ACSD 2005 proceedings

(3) : Access to MOMPES and ACSD 2005 sessions, 4 lunches, coffee breaks, MOMPES and ACSD 2005 proceedings, the free shuttle from Rennes to St Malo

(4) : Social event is included (guided tour of Mont Saint Michel and gala dinner)

(5) : Social event is not included. Please provide a copy of your student id with the registration form.

(6) : Guided tour of Mont Saint Michel and gala dinner.

Important Dates

- Deadline for final manuscripts: 31 March 2005
- Deadline for early registration: 30 April 2005
- Conference: 6-9 June 2005

Links

- ACSD 2005 web page: <http://acsd2005.irisa.fr/>



The Fifth International Conference on Application of Concurrency to System Design

Morning Program

	<i>Tuesday 7 June</i>	<i>Wednesday 8 June</i>	<i>Thursday 9 June</i>
08h15	<u>Registration</u>		
08h30		<u>Invited Speaker</u> : Werner Damm	
08h45	<u>Opening Session</u>		
09h00	<u>Invited Speaker</u> : Anca Muscholl		<u>Invited Speaker</u> : Kees Gossens
09h30		<u>Session 5</u> : Analysis and Synthesis of Timed Systems Robert Clariso and Jordi Cortadella. Verification of Concurrent Systems with Parametric Delays Using Octahedra	
10h00	<u>Session 1</u> : Specification of Communication Protocols Radu Grosu and Scott Smolka. Safety-Liveness Semantics for UML 2.0 Sequence Diagrams	Wei Zheng, Jike Chong, Claudio Pinello, Sri Kanajan and Alberto Sangiovanni-Vincentelli. Extensible and Scalable Time Triggered Scheduling	<i>Coffee Break</i>
10h30	Jukka Honkola, Sari Leppänen and Teemu Tynjala. Modeling the SpaceWire Architecture with Lyra	<i>Coffee Break</i>	<u>Session 8</u> : Languages and Calculi Franck van Breugel and Mariya Koshkina. Dead-Path-Elimination in BPEL4WS
11h00	<i>Coffee Break</i>	<u>Session 6</u> : Models of Simulation Techniques Juan de Lara and Gabriele Taentzer. Modelling and Analysis of Distributed Simulation Protocols with Distributed Graph Transformation	Samuele Carpineti, Cosimo Laneve and Paolo Milazzo. BoPi: A distributed machine for experimenting Web Service technologies
11h30	<u>Session 2</u> : Formal Models and Property Analysis Matthieu Moy, Florence Maraninchi and Laurent Maillet-Contoz. LusSy: A Toolbox for the Analysis of Systems-on-a-Chip at the Transactional Level	Timo Kellomäki and Antti Valmari. A Method for Analysing the Performance of Certain Testing Techniques for Concurrent Systems	Marjan Sirjani, Frank de Boer, Ali Movaghar and Amin Shali. Extended Rebeca: A Component-Based Actor Language with Synchronous Message Passing
12h00	Nicolas Rivierre, Francois Horn and Frederic Dang Tran. On Monitoring Concurrent Systems with TLA: an Example	<i>Lunch Break</i>	<i>Lunch Break</i>
12h30	<i>Lunch Break</i>		



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Afternoon Program

	<i>Tuesday 7 June</i>	<i>Wednesday 8 June</i>	<i>Thursday 9 June</i>
12h30	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>
13h30		<u>Session 7</u> : Communication Synthesis Jordi Cortadella, Kyller Gorgonio, Fei Xia and Alex Yakovlev. Automating Synthesis of Asynchronous Communication Mechanisms	<u>Tool exhibition</u>
14h00	<u>Session 3</u> : Asynchronies Dumitru Potop-Butucaru and Benoit Caillaud. Correct-by-construction asynchronous implementation of modular synchronous specifications	Yinghua Li, Alex Kondrayev and Robert Brayton. Gaining Predictability and Noise Immunity in Global Interconnects	<u>Session 9</u> : Approaches based on Petri Nets Rachid Hadjidj and Hanifa Boucheneb. Much compact Time Petri Net state class spaces useful to restore CTL* properties
14h30	Hemangee Kapoor and Mark Josephs. Controllable Delay-Insensitive Processes and their Reflection, Interaction and Factorisation	<u>Tool Exhibition</u>	Christian Stahl, Wolfgang Reisig and Milos Krstic. Hazard Detection in a GALS Wrapper: a Case study
15h00	Alexander Smirnov, Alexander Taubin, Ming Su and Mark Karpovsky. An Automated Fine-Grain Pipelining Using Domino Style Asynchronous Library	<i>Bus leaves for Mt St Michel</i>	Walter Vogler and Ben Kangsah. Improved Decomposition of STGs
15h30	<i>Coffee break</i>		<u>Closing Session</u>
16h00	<u>Session 4</u> : Theoretical Approaches Alin Stefanescu and Keijo Heljanko. Complexity Results for Checking Distributed Implementability	<i>Excursion to Mt St Michel</i>	
16h30	Marc Geilen, Twan Basten, Bart Theelen and Ralph Otten. An Algebra of Pareto Points		
17h00	Stavros Tripakis. Two-phase distributed observation problems		
17h30	Klaus Schneider, Jens Brandt, Tobias Schuele and Thomas Tuerk. Maximal Causality Analysis		
18h00			
19h00		<i>Bus leaves for the Gala Dinner</i>	