3AF — Association Aéronautique Astronautique de France

6th European Congress

ERTS² 2012

EMBEDDED REAL TIME SOFTWARE AND SYSTEMS

1-3 FEBRUARY 2012 / TOULOUSE, FRANCE
CENTRE DE CONGRÈS PIERRE BAUDIS

see

PROGRAMME

GENERAL INFORMATION

Registration conference access

All attendees must register upon arrival and receive a conference badge which will be requested to access all ERTS² 2012 events. The registration desk opening hours are as follows:

Wednesday 1 February   08:00 - 18:00
Thursday 2 February   08:30 - 18:30
Friday 3 February   08:30 - 16:30

Conference proceedings

All conference attendees will receive a conference Folder including the programme, proceedings on credit card usb key and Book of Abstracts. Proceedings will be also available for download on the website after the conference.

Additional Conference proceedings may be purchased via the Registration Desk for 100 €.

Exhibition

A major exhibition is run in parallel to ERTS² 2012, covering a wide range of products and services in the field of embedded software and systems. The exhibition is located in the room Concorde, Level -1.

Wednesday 1 February   09:00 - 20:00
Thursday 2 February   08:30 - 19:00
Friday 3 February   08:30 - 16:00

Coffee Breaks

Coffee breaks will take place in the Exhibition Hall, Room Concorde, Level - 1.

Wednesday 1 February   from 10:30 to 11:00 and from 16:10 to 16:40
Thursday 2 February   from 10:00 to 10:30 and from 15:30 to 16:00
Friday 3 February   from 10:00 to 10:30

Conference Meals

Lunches from Wednesday 1 February to Friday 3 February are included in the Registration fees.

Lunches will be served in room Caravelle, Level 0, from 13:00 to 14:00 on Wednesday, from 12:30 to 13:30 on Thursday and Friday.

Internet Access

A WIFI system will be provided, giving free internet access to all ERTS² 2012 Conference delegates.

Luggage room

A cloakroom is at the delegates' disposal at the Conference centre, in front of the Registration desk, Level 0.

Social Events

- Welcome Reception on Wednesday 1 February- from 18:40 to 19:40 Exhibition Hall, Room Concorde, Level -1

- Gala Evening on Thursday 2 February - from 19:30 to 23:00 Invitation ticket requested at the main entrance (given at the badge withdrawal)

PIERRE BAUDIS CONGRESS CENTER

ERTS² 2012 will be held at the Pierre Baudis Congress Center, located in the centre of Toulouse.

Address:
Centre de Congrès Pierre Baudis
11, esplanade Compans Caffarelli
31000 Toulouse

Access:
By Metro
Compans Caffarelli (Line B) Station

By bus
The congress centre is served by bus lines:
N°1 N°70 & N°71 (Bus stop Compans Caffarelli),
N°16 (Bus stop Jeanne d'Arc)

From/To Airport
A shuttle bus every 20 minutes with a station in front of the Pierre Baudis Congress Center (Compans Caffarelli)

Taxi Company
A Station is available just in front of the entrance of the Hotel Mercure Atria, Boulevard Lascrosse
To call a taxi : + 33 (0)5 61 20 90 00

ERTS² 2012 at Pierre Baudis Congress Center

LEVEL 2
Room Auditorium St Exupéry
• Plenary Sessions & Sessions A
Room Guillaumet 1+2 • Sessions B

LEVEL 1
Room Ariane 1 • Sessions C
Room Ariane 2 • Sessions D

LEVEL 0
Hall d'accueil • Conference registration
Room Caravelle 1 + 2 • Lunches and Gala Evening

LEVEL -1
Room Concorde 1+2
• Exhibition registration
• Exhibition & B to B meetings
• Welcome Reception
• Coffee Breaks

ERTS² 2012 PROGRAMME AT-A-GLANCE

Architecture	Process, Tools	Quality, Safety	Verification & Validation, Diagnostics
Model Based	Human Factors	Open-DO	Tool sessions

WEDNESDAY 1 FEBRUARY 2012

09:00-09:30	*Opening Session* **Joseph SIFAKIS** - Verimag & Congress General and Programme Committee Chair - France **Jean BOTTI** - EADS France & Congress General Chair - France **Louis Claude VRIGNAUD** - Continental Automotive - France			
09:30-10:30	*Keynote address* *Embedded Systems in Automotive Industry - Trends and Challenges* **Klaus GRIMM**, Daimler AG and ARTEMIS Industry Association, Germany			
10:30-11:00	EXHIBITION VISIT / REFRESHMENT BREAK			
11:00-13:00	**Session 1A** Multi-Domain Safety Assurance	**Session 1B** Timing Challenges in Communication Systems	**Session 1C** AUTOSAR Deployment Status	**Session 1D** Verification & Validation I
13:00-14:00	EXHIBITION VISIT / LUNCH			
14:00-15:00	*Panel Multi-core* **Session Chair: Joseph SIFAKIS**, Verimag - France **Panelists: Ralph MADER**, Continental Corporation - Germany **Frédéric ASPRO**, Airbus - France **Vincent LEFFTZ**, Astrium Satellites - France **Benoit DINECHIN**, Kalray - France			
15:10-16:10	**Session 2A** Model Based Safety	**Session 2B** Case studies (Systems)	**Session 2C** Human Factors	**Session 2D** Verification & Validation II
16:10-16:40	EXHIBITION VISIT / REFRESHMENT BREAK			
16:40-18:40	**Session 3A** IMA, Partitioning	**Session 3B** Timing Analysis	**Session 3C** Engineering Frameworks I	
18:40-19:40	WELCOME RECEPTION			

EXHIBITION

THURSDAY 2 FEBRUARY 2012

Time					
09:00-10:00		**Keynote address** *Taming Dr. Frankenstein: Designing Distributed Systems* **Alberto SANGIOVANNI-VINCENTELLI,** UC Berkeley,USA			
10:00-10:30		EXHIBITION VISIT / REFRESHMENT BREAK			
10:30-12:30		**Session 4A** Engineering Frameworks II	**Session 4B** Hardware/Software Co-design	**Session 4C** Partitioning	**Session 4D** Safety Process
12:30-13:30	E X H I B I T I O N	EXHIBITION VISIT / LUNCH			
13:30-15:30		**Session 5A** Requirements Engineering	**Session 5B** SysML in Use	**Session 5C** Formal Code Analysis	
15:30-16:00		EXHIBITION VISIT / REFRESHMENT BREAK			
16:00-17:00		**Session 6A** Open Source Business Models	**Session 6B** Case Studies in Model Based Engineering	**Session 6C** Reuse and Product Lines	**Session 6D** Software Qualimetry
17:10-18:10		**Session Tool A** Model Based Approach	**Session Tool B** System & Safety Engineering	**Session Tool C** Automotive Functional Safety ISO26262	**Session Tool D** Operating System & Implementation
19:00-23:00		**GALA EVENING** - PIERRE BAUDIS CONGRESS CENTER			

FRIDAY 3 FEBRUARY 2012

Time				
09:00-10:00		**Keynote address** *Towards a greener and more eco efficient aerospace industry* **Denis CHAPUIS,** VP Research and Technology of EADS, France		
10:00-10:30		EXHIBITION VISIT / REFRESHMENT BREAK		
10:30-12:30	E X H I B I T I O N	**Session 7A** Open-DO	**Session 7B** Model Based Process	**Session 7C** Software Implementation
12:30-13:30		EXHIBITION VISIT / LUNCH		
13:30-14:30		**Panel Smart energy management** **Session Chair: Louis Claude VRIGNAUD**, Continental Automotive- France **Panelists: Jean-Luc MATÉ**, Continental automotive - France / **Etienne FOCH**, Airbus - France / **Jean-Luc DORMOY**, EDF Group - France		
14:40-16:10		**Session 8A** Safety & Security	**Session 8B** Model Based Testing	**Session 8C** Diagnosis & Prognosis
16:20-16:50		**Closing session** **Christel SEGUIN**, SEE/ONERA & Organising General Co-Chair **Francis GUIMERA**, 3AF Midi-Pyrénées & Organising General Co-Chair		

PROGRAMME, WEDNESDAY 1 FEBRUARY 2012

09:00-09:30	Room Auditorium St Exupéry ***Opening Session*** **Joseph SIFAKIS** - Verimag & Congress General and Programme Committee Chair - France **Jean BOTTI** - EADS France & Congress General Chair - France **Louis Claude VRIGNAUD** - Continental Automotive - France
09:30-10:30	Room Auditorium St Exupéry ***Keynote address*** *Embedded Systems in Automotive Industry - Trends and Challenges* **Klaus GRIMM**, Daimler AG and ARTEMIS Industry Association, Germany
10:30-11:00	EXHIBITION VISIT / REFRESHMENT BREAK / Room Concorde

	Session 1A *Multi-Domain Safety Assurance* Room Auditorium St Exupéry	Session 1B *Timing Challenges in Communication Systems* Room Guillaumet	Session 1C *AUTOSAR Deployment Status* Room Ariane 1	Session 1D *Verification & Validation I* Room Ariane 2
11:00-13:00				
11:00-11:30	*1A.1 - Criticality categories across safety standards in different domains* **Jean-Paul Blanquart** - Astrium Satellites, France / **Jean-Marc Astruc** - Continental, France / **Philippe Baufreton, Bertrand Ricque** - Sagem Défense Sécurité, France / **Jean-Louis Boulanger** - CERTIFER, France / **Hervé Delseny** - Airbus, France / **Jean Gassino** - IRSN, France / **Gérard Ladier** - Aerospace Valley, France / **Emmanuel Ledinot** - Dassaul Aviation, France / **Michel Leeman** - Valeo, France / **Joseph Machrouh** - Thales, France / **Philippe Quéré** - Renault, France	*1B.1 - Identifying Source of Pessimism in the Trajectory Approach with FIFO Scheduling* **Sara Medlej** - LRI-EDF, France **Steven Martin** - LRI, France **Jean-Marie Cottin** - EDF, France	*1C.1 - AUTOSAR: Achievements, roll-out, perspectives* **Alain Gilberg** - PSA PEUGEOT CITROEN, France **Steffen Lupp** - Bosch, Germany **Simon Fuerst** - BMW, Germany **Demetrio Aiello** - Continental, Germany **Stefan Schmerler** - Daimler, Germany **Frank Kirschke Biller** - Ford, United States **Robert Rimkus** - GM, United States **Kenji Nishikawa** - TMC, Japan **Andreas Titze** - Volkswagen, Germany	*1D.1 - First steps toward a Verification and validation ontology* **Mounira Kezadri, Marc Pantel** - IRIT, Université de Toulouse, France

11:30-12:00	*1A.2 - Cross domain comparison of System Assurance* **Joseph Machrouh** - Thales, France / **Jean-Paul Blanquart** - ASTRIUM, France / **Philippe Baufreton, Bertrand Ricque** - Sagem, France / **Jean-Louis Boulanger** - CERTIFER, France / **Hervé Delseny** - Airbus, France / **Jean Gassino** - IRSN, France / **Gérard Ladier** - Aerospace Valley, France / **Emmanuel Ledinot** - Dassault Aviation, France / **Michel Leeman** - Valeo, France / **Jean-Marc Astruc** - Continental, France / **Philippe Quéré** - Renault, France / **Gilles Deleuze** - EDF R&D, France	*1B.2 - Fine-grained Simulation in the Design of Automotive Communication Systems* **Aurelien Monot** - PSA Peugeot Citroën/LORIA, France **Bernard Bavoux** - PSA Peugeot Citroën, France **Nicolas Navet** - INRIA / RTaW, France	*1C.2 - DESTAR - AUTOSAR Standard Deployment* **Emmanuel Coutenceau** - Valeo, France **Olivier Guetta** - Renault, France **Aldric Loyer** - PSA Peugeot Citroën, France	*1D.2 - Component-based Design and Verification in X-MAN* **Nannan He, Daniel Kroening, Thomas Wahl** - Oxford University, United Kingdom **Lau Kung-Kiu, Faris Taweel, Tran Cuong M** - Manchester University, United Kingdom **Ruemmer Philipp** - Uppsala University, Sweden **Sharma Sanjiv S.** - Airbus Operations Limited, United Kingdom
12:00-12:30	*1A.3 - A cross-domain comparison of software development assurance* **Emmanuel Ledinot** - DASSAULT AVIATION, France / **Jean Gassino** - IRSN, France / **Jean-Paul Blanquart** - Astrium Satellites, France / **Jean-Louis Boulanger** - CERTIFER, France / **Philippe Quéré** - Renault, France / **Bertrand Ricque** - Sagem Défense Sécurité, France	*1B.3 - Experimental assessment of timing verification techniques for AFDX* **Marc Boyer** - ONERA, France **Nicolas Navet** - INRIA / RTaW, France **Marc Fumey** - Thales Avionics, France	*1C.3 - Safety-relevant development by adaptation of standardized safety concepts in AUTOSAR 4.0* **Michael Niklas,** - Continental Engineering Services GmbH, Germany **Stefan Voget** - Continental Automotive GmbH, Germany **Jürgen Mottok** - University of Applied Sciences Regensburg, Germany	*1D.3 - Context Aware Model Exploration with OBP tool to Improve Model-Checking* **Philippe Dhaussy, Jean-Charles Roger, Luka Leroux** - ENSTA Bretagne, France **Frédéric Boniol** - ONERA, France
12:30-13:00	*1A.4 - A multi-domain platform of safety process methods and tools for critical embedded systems* **Jean-Paul Blanquart** - Astrium Satellites, France / **Eric Armengaud** - AVL, Austria / **Philippe Baufreton** - Sagem Défense Sécurité, France / **Quentin Bourrouilh** - AVL, Austria / **Joseph Machrouh** - Thales, France / **Thomas Peikenkamp, Markus Oertel** - Offis, Germany / **Tormod Wien** - ABB, Norway / **Andreas Mitschke** - EADS, Germany	*1B.4 - Mastering Timing Challenges for the Design of Multi-Mode Applications on Multi-Core Real-Time Embedded Systems* **Mircea Negrean, Rolf Ernst** - IDA, TU Braunschweig, Germany **Simon Schliecker** - Symtavision GmbH, Germany	*1C.4 - AUTOSAR BSW in real life, A summary of the last years starting and putting projects into production on AR* **Matthieu Courrier** - Continental Automotive, France	*1D.4 - Verification and Validation According to ISO 26262- A Workflow to Facilitate the Development of High-Integrity Software* **Mirko Conrad** - The mathWorks, Inc., United States

13:00-14:00	EXHIBITION VISIT / Room Concorde - LUNCH / Room Caravelle			
14:00-15:00	***Panel Multi-core*** **Session Chair: Joseph SIFAKIS**, Verimag - France **Panelists: Ralph MADER**, Continental corportation - Germany / **Frédéric ASPRO**, Airbus - France **Vincent LEFFTZ**, Astrium Satellites - France / **Benoit DINECHIN**, Kalray - France Room Auditorium St Exupéry			
15:10-16:10	***Session 2A*** ***Model Based Safety*** Room Auditorium St Exupéry	***Session 2B*** ***Case Studies (systems)*** Room Guillaumet	***Session 2C*** ***Human Factors*** Room Ariane 1	***Session 2D*** ***Verification & Validation II*** Room Ariane 2
15:10-15:40	*2A.1 - Using the CESAR Safety Design Process for Functional Safety Management in the context of ISO 26262* **Eric Armengaud, Gerhard Griessnig, Quentin Bourrouilh** - AVL List GmbH, Austria **Helmut Martin, Peter Reichenpfader** - Virtual Vehicle Competence Center, Austria	*2B.1 - Avionic-X : A demonstrator for the Next Generation Launcher Avionics* **David Monchaux** - CNES - Direction des Lanceurs, France **Philippe Gast, Jérémie Sangare** - ASTRIUM Space Transportation, France	*2C.1 - Multi-Criteria Evaluation of Aircraft Cockpit Systems by Model-based Simulation of Pilot Performance* **Andreas Luedtke, Jan-Patrick Osterloh, Florian Frische** - OFFIS, Institute for Information Technology, Germany	*2D.1 - Validate implementation correctness using simulation : the TASTE approach* **Julien Delange** - ESA, Netherlands **Jerome Hugues** - ISAE, France **Pierre Dissaux** - Ellidiss, France
15:40-16:10	*2A.2 - A COTS-based Safe Design Method for Train Control Systems* **Salam Hajjar, Emil Dumitrescu, Eric Niel** - INSA de Lyon, France	*2B.2 - Flight Test Engineer Station for A350 aircraft* **Yves Marcet, Guillaume Monsarrat, Olivier Gallot, Jean-Francois Dausse** - Airbus France, France	*2C.2 - Interactive Cockpits Applications: Specification, Prototyping and Validation using a Petri-nets based Formalism* **Eric Barboni, Arnaud Hamon, Célia Martinie, David Navarre, Philippe Palanque** - ICS-IRIT University Toulouse 3, France **Adrienne Tankeu-Choitat** - ICS-IRIT University Toulouse 3, Cameroon	*2D.2 - DO-178C Compliance of Veri-soft Formal Methods* **Holger Blasum** - SYSGO AG, Germany **Frank Dordowsky** - ESG Elektroniksystem - und Logistik GmbH, Germany **Bruno Langenstein, Andreas Nonnengart** - German Research Centre for Artificial Intelligence (DFKI), Germany
16:10-16:40	EXHIBITION VISIT / REFRESHMENT BREAK / Room Concorde			

	Session 3A *IMA, Partitioning* Room Auditorium St Exupéry	Session 3B *Timing Analysis* Room Guillaumet	Session 3C *Engineering Frameworks I* Room Ariane 1
16:40-18:40			
16:40-17:10	*3A.1 - An Extensible Partioning Framework for Safety-Critical Systems* **Felix Bruns, Anas Showk** - Ruhr-Universität-Bochum, Germany **Dirk Kuschnerus, Attila Bilgic** - KROHNE Messtechnik GmbH, Germany	*3B.1 - The TIMMO-2-USE project: Time modeling and analysis to use* **M-A Peraldi-Frati** - Laboratory / Université de Nice - INRIA Sophia Antipolis, France / **Daniel Karlsson** - Volvo Technology AB, Sweden / **A. Hamann** - Robert Bosch GmbH, Germany / **S. Kuntz** - Continental Automotive GmbH, Germany / **J. Nordlander** - Chalmers University of Technology, Sweden	*3C.1 - Prototyping an Embedded Automotive System from its UML/SysML Models* **Ludovic Apvrille, Alexandre Becoulet** - Telecom ParisTech, France
17:10-17:40	*3A.2 - Modeling ARINC-653 systems in UML* **Andreas Korff** - Atego Systems GmbH, Germany	*3B.2 - Tool Support for Seamless System Development based on AUTOSAR Timing Extensions* **Oliver Scheickl, Christoph Ainhauser** - BMW Car IT, Germany **Peter Gliwa** - Gliwa GmbH, Germany	*3C.2 - Efficient Embedded System Development: A Workbench for an Integrated Methodology* **Nicolas Hili, Christian Fabre** - CEA/LETI/DACLE/LIALP, France / **Sophie Dupuy**-Chessa - LIG/SIGMA, France / **Stéphane Malfoy** - Telecom Systems SA, Switzerland
17:40-18:10	*3A.3 - Specific certification issues about Integrated Modular Architectures* **Jean François Sicard, Ghilaine Martinez** - French Ministry of Defense, France **Florian Many** - DGA Aeronautical techniques, France	*3B.3 - From Model-Based to Real-Time Execution of Safety-Critical Applications: Coupling Scade with OASIS* **Simon Bliudze, Mathieu Jan** - CEA LIST, France **Xavier Fornari** - Esterel Technologies, France	*3C.3 - TASTE An open-source toolchain for embedded software development* **Maxime Perrotin, Julien Delange** - European Space Agency, Netherlands **Eric Conquet** - European Space Agency, France **Thanassis Tsiodras** - Semantix, Greece
18:10-18:40	*3A.4 - Reconfigurable IMA platform: from safety assessment to test scenarios on the Scarlett demonstrator* **Pierre Bieber, Julien Brunel, Kushal Gupta, Eric Noulard, Claire Pagetti** - ONERA, France **Thierry Planche** - Airbus, France **François Vialard** - Aeroconseil, France	*3B.4 - ChronVAL/ChronSIM: A Tool Suite for Timing Analysis of Automotive Applications* **Saoussen Anssi** - Continental Automotive toulouse, France **Karsten Albers, Matthias Dörfel** - Inchron GmbH, Germany **Sébastien Gérard** - CEA LIST Paris, France	*3C.4 - A UML Profile for the Development of IEC 61508 Compliant Embedded Software* **Dirk Kuschnerus, Felix Bruns, Thomas Musch** - Ruhr-Universität Bochum, Germany **Attila Bilgic** - KROHNE Messtechnik GmbH, Germany
18:40-19:40	WELCOME RECEPTION / Room Concorde		

09:00-10:00	Room Auditorium Saint Exupéry *Keynote address: Taming Dr. Frankenstein: Designing Distributed Systems* **Alberto SANGIOVANNI-VINCENTELLI** - UC Berkeley, USA

10:00-10:30	EXHIBITION VISIT / REFRESHMENT BREAK / Room Concorde

10:30-12:30	*Session 4A* *Engineering Frameworks II* Room Auditorium St Exupéry	*Session 4B* *Hardware/Software Co-design* Room Guillaumet	*Session 4C* *Partitioning* Room Ariane 1	*Session 4D* *Safety Process* Room Ariane 2
10:30-11:00	*4A.1 - SCADE System, a comprehensive toolset for smooth transition from Model-Based System Engineering to certified embedded control and display software* **Thierry Le Sergent, Alain Le Guennec** - Esterel Technologies, France / **François Terrier, Sébastien Gérard, Yann Tanguy** - CEA, France / **Kara Gremillion** - Esterel Technologies, United States	*4B.1 - Component-based technologies for HW/SW co-design* **Ana Rodriguez, Francisco Ferrero** - GMV, Spain	*4C.1- Building a Generic (cross-domains) Basic Software on top of the XtratuM hypervisor* **Jean-Jacques Metge, Julien Galizzi, Paul Arberet** - CNES, France / **Bernard Sanchez, Jonathan Paty** - Continental Engineering Services, France / **Gilles Saint-Aubin, Mikael Deschamps** - Intertechnique / Zodiac Aerospace, France	*4D.1 - Safety Standards and WCET Analysis Tools* **Daniel Kästner, Christian Ferdinand** - AbsInt GmbH, Germany
11:00-11:30	*4A.2 - TOPCASED Results and Benefits* **Pierre Gaufillet, Patrick Farail** - Airbus Operations SAS, France	*4B.2 - Improving architecture efficiency of SoftCore processors* **Bertrand Le Gal, Christophe Jego** - IMS Laboratory - UMR CNRS 5218, France	*4C.2 - LVCUGEN (TSP-based solution) and first porting feedback* **Julien Galizzi** - CNES, France	*4D.2 - Interoperability between Risk Assessment and System Design for Railway Safety Critical Signalling System Development* **Marielle Doche-Petit** - Systerel, France / **Frédéric Thomas** - Obeo, France / **Fabien Belmonte** - Alstom Transport, France
11:30-12:00	*4A.3 - The Assert Set of Tools for Engineering (TASTE): Demonstrator, HW/SW Codesign, and Future* **Marc Pollina, Yann Leclerc** - M3Systems, France **Eric Conquet, Maxime Perrotin** - ESA - ESTEC, France **Guy Bois, Laurent Moss** - Space Codesign Systems, Canada	*4B.3 - A Simulator based on QEMU and SystemC for Robustness Testing of a Networked Linux-based Fire Detection and Alarm System* **Massimiliano D'Angelo, Alberto Ferrari, Alessandro Ulisse** - ALES S.r.l., Italy / **Ommund Ogaard** - Autronica Fire and Security, Norway / **Claudio Pinello** - United Technologies Research Center, United States	*4C.3 - IO Virtualisation in a Partitioned System* **Miguel Masmano, Salva Peiró, Jordi Sánchez, Jose Simó, Alfons Crespo** - Universidad Politécnica de Valencia, Spain	*4D.3 - Human-robot interactions: model-based risk analysis and safety case* **Quynh Anh Do Hoang, Jérémie Guiochet, David Powell, Mohamed Kaaniche** - LAAS-CNRS, France
12:00-12:30	*4A.4 - The CESAR RTP as Product Line: The Configuration of an Integrated Tool Chain* **Peter Graubmann, Michael C. Jaeger, Reiner Schmid** - Siemens AG, Germany	*4B.4 - SoCKET: A HW/SW Co-Design Flow: Presentation & feedbacks from aeronautic and space application domains* **Vincent Lefftz** - Astrium SAS, France **Pierre Moreau** - Airbus Operations SAS, France	*4C.4 - Applying the AUTOSAR timing protection to build safe and efficient ISO 26262 mixed-criticality systems* **Christoph Ficek, Nico Feiertag, Kai Richter, Marek Jersak** - Symtavision GmbH, Germany	*4D.4 - Elicitation of Executable Safety Rules for Critical Autonomous Systems* **Amina Mekki Mokhtar, Jérémie Guiochet, David Powell, Matthieu Roy** - LAAS-CNRS, France **Jean-Paul Blanquart** - EADS ASTRIUM, France

12:30-13:30	EXHIBITION VISIT / Room Concorde - LUNCH / Room Caravelle		
13:30-15:30	***Session 5A*** ***Requirements Engineering*** Room Auditorium St Exupéry	***Session 5B*** ***SysML in Use*** Room Guillaumet	***Session 5C*** ***Formal Code Analysis*** Room Ariane 1
13:30-14:00	*5A.1 - Improving Requirements Engineering within the European Space Industry* **Silvia Mazzini, John Favaro** - INTECS, Italy **Rudolf Schreiner, Ulrich Lang** - ObjectSecurity Ltd., United Kingdom **H-P De Koning** - European Space Agency, Netherlands	*5B.1 - DesyreML: a SysML profile for heterogeneous embedded systems* **Alberto Ferrari, Leonardo Mangeruca** - ALES S.r.l., Italy **Orlando Ferrante** - ALES S.r.l. & University of Rome La Sapienza, Italy **Alessandro Mignogna** - ALES S.r.l. & Scuola Superiore Sant'Anna, Italy	*5C.1 - Transferring Stability Proof Obligations from Model Level to Code Level* **Michael Dierkes** - Rockwell Collins France, France **Daniel Kästner** - AbsInt GmbH, Germany
14:00-14:30	*5A.2 - Model-based specification of the flight software of an autonomous satellite* **Jérémie Pouly** - CNES, France **Sylvain Jouanneau** - ALTEN SO, France	*5B.2 - MADES: A SysML/MARTE high level methodology for real-time and embedded systems* **Imran Rafiq Quadri, Andrey Sadovykh** - Softeam, France **Leandro Soares Indrusiak** - University of York, United Kingdom	*5C.2 - The B method takes up floating-point numbers* **Jean-Louis Dufour** - Sagem, groupe SAFRAN, France **Lilian Burdy, Thierry Lecomte** - Clearsy, France
14:30-15:00	*5A.3 - Integrated tool chain for improving traceability during the development of automotive systems* **Eric Armengaud, Alfred Wallner** - AVL, Austria/ **Matthias Biehl** - KTH, Sweden / **Quentin Bourrouilh** - AVL List GmbH, Austria / **Michael Breunig** - Infineon, Austria / **Stefan Farfeleder** - TU Vienna, Austria **Christian Hein** - Fraunhofer Fokus, Germany / **Markus Oertel** - OFFIS, Germany / **Markus Zoier** - VIF, Austria	*5B.3 - Combining SysML and AADL for the Design, Validation and Implementation of Critical Systems* **Pierre De Saqui-Sannes** - LAAS/ISAE, France **Jerome Hugues** - ISAE, France	*5C.3 - Fan-C, a Frama-C plug-in for data flow verification* **David Delmas** - Airbus Operations SAS, France **Pascal Cuoq** - CEA LIST, France **Victoria Moya Lamiel**, **Stéphane Duprat** - Atos Origin, France
15:00-15:30	*5A.4 - Efficient Methodology from Requirements to Design Models for an Automotive Application* **Adedjouma Morayo,** - DELPHI, France **Machnik Wojciech** - DELPHI, Poland **Dubois Hubert, Terrier François** - CEA LIST, France	*5B.4 - SysML for embedded automotive Systems: lessons learned* **Jean-Denis Piques** - VALEO - Powertrain Systems Business Group – Electric, France **Eric Andrianarison** - VALEO - Group Electronic Expertise and Development Services, France	*5C.4 - Formally verified optimizing compilation in ACG-based flight control software* **Ricardo B. França, Marc Pantel** - IRIT, Université de Toulouse, France **/ Sandrine Blazy** - IRISA, Université de Rennes 1, France / **Denis Favre-Felix, Jean Souyris** - AIRBUS Operations SAS, France / **Xavier Leroy** - INRIA Rocquencourt, France

15:30-16:00	EXHIBITION VISIT / REFRESHMENT BREAK / Room Concorde			
16:00-17:00	*Session 6A* ***Open Source Business Models*** Room Auditorium St_Exupéry	*Session 6B* ***Case Studies in Model Based Engineering*** Room Guillaumet	*Session 6C* ***Reuse and Product Lines*** Room Ariane 1	*Session 6D* ***Software Qualimetry*** Room Ariane 2
16:00-16:30	*6A.1 - Collaboration in Automotive: The Eclipse Automotive Industry Working Group* **Graf Andreas** - itemis Gmbh, Germany / **Ralph Mueller** - Eclipse Foundation, Germany / **Ignacio Garro, Stefan Voget** - Continental, Germany / **Harald Mackamul** - Robert Bosch GmbH, Germany	*6B.1 - Modeling and Validation of a Data Process Unit Control for Space Applications* **Hai Wan, Congdi Huang, Yuhui Wang, Fei He, Ming Gu** - Key Lab of ISS of MOE, TNList, School of Software, Tsinghua, China / **Marius Bozga** - Verimag/CNRS, France	*6C.1 - SAVOIR: Reusing specifications to improve the way we deliver avionics* **Jean-Loup Terraillon** - European Space Agency, Netherlands **Savoir Advisory Group -** SAVOIR group represented by the European Space Agency, Netherlands	*6D.1 - Software Qualimetry at Schneider Electric: a field background* **Hervé Dondey** - Schneider Electric, France **Christophe Peron** - Squoring Technologies, France
16:30-17:00	*6A.2 - Polarsys, new generation of Open Source organization, targets long-term availability of engineering tools for Embedded Systems* **Gael Blondelle** - Obeo, France / **Paul Arberet** - CNES, France / **Alain Rossignol** - EADS Astrium, France / **Christian Labezin** - Xipp, France / **Romain Berrendonner** - Adacore, France / **Pierre Gaufillet** - Airbus, France / **Raphaël Faudou** - Atos Origin, France / **Benoît Langlois** - Thales, France / **Luc Maisonobe, Eric Bonnafous** - CS, France / **Pierre Moro** - EADS Space Transportation, France / **Jorge Rodriguez** - Indra, Spain / **José Manuel Puerta** - TCP SI, Spain / **Björn Lundell** - University of Skövde, Sweden / **Ralph Mueller** - Eclipse Foundation, Germany	*6B.2 - Customization principles of an aeronautics SLM environment and an illustration on aeronautics use cases: the doors management system and the flight control system* **Philippe Baufreton, Fabien Paganelli** - SAGEM, France **Gérard Cristau** - THALES R&T, France **Odile Laurent** - AIRBUS FRANCE, France **Nikolaos Priggouris** - HAI, Greece **Ivo Viglietti** - ALENIA SIA, Italy **Stéphane Bonnet** - CNRS, France	*6C.2 - The product-line engineering approach in a model-driven process* **Hubert Dubois, Patricia Mouy** - CEA-LIST, France **Vincent Ibanez, Nicolas Meledo** - THALES AVIONICS, France **Joseph Machrouh** - THALES R&T, France **A Silva** - Franhofer IESE, Germany **Cristina Lopez** - Tecnalia, Spain	*6D.2 - Model Quality Assessment in Practice: How to Measure and Assess the Quality of Software Models During the Embedded Software Development Process* **Ingo Stuermer, Hartmut Pohlheim** - Model Engineering Solutions GmbH, Germany

17:10-18:10	Tool Sessions			
17:10-18:10	**Session Tool A** ***Model Based Approach*** Room Auditorium St Exupéry	**Session Tool B** ***System & Safety Engineering*** Room Guillaumet	**Session Tool C** ***Automotive Functional Safety, ISO26262*** Room Ariane 1	**Session Tool D** ***Operating System & Implementation*** Room Ariane 2
17:10-17:25	*Tool A.1 - Modernizing System Development: Requirements-Based, Model-Driven Design, Implementation, and Test* **Michelle Lange, Bill Chown** - Mentor Graphics, United States	*Tool B.1 - An integrated approach to implement system engineering and safety engineering processes: SASHA Project* **Hycham Aboutaleb** - Knowledge Inside - ENSTA, France - **Mohamed Bouali, Emilia Suomalainen** - Knowledge Inside, France / **Morayo Adedjouma** - Delphi, France	*Tool C.1 - Automotive Systems Engineering und Functional Safety: The Way Forward* **Albert Habermann,** - Vector Informatik GmbH, Germany	*Tool D.1 RTEL4I (Real Time Embedded Linux for Industries)* **Pierre Ficheux** - Open Wide Ingénierie, France
17:25-17:40	*Tool A.2 - MBSE Applied to an Aerospace 'Force Fighting' Application* **Sandrine Loembé** - Dassault Systèmes, France **Nicolas Croué** - Keonys, France **Bruno Vuillemin** - ALTRAN, France	*Tool B.2 - Consistent Safety Analyses in Model-Based System Engineering: Concepts and Tools* **Valerie Bouquet, Frederique Vallee, Franck Sadmi, Jonathan Dumont** - ALL4TEC, France	*Tool C.2 - Hardware-in-the-Loop Testing of Safety-Relevant Functions in the Context of ISO 26262* **Andreas Himmler** - dSPACE GmbH, Germany	*Tool D.2 Unification of Safety-Critical Java* **Kelvin Nilsen** - Atego Systems, Inc., United States
17:40-17:55	*Tool A.3 - Requirements and Test Case Tracing* **Dr. Joachim Wegener, Ute Herold** - Berner & Mattner Sytemtechnik GmbH, Germany	*Tool B.3 - Systems Engineering for Cyber-Physical Products* **Bernard Clark** - Dassault Systemes, United Kingdom	*Tool C.3 - Reduce Cost of ISO 26262 Compliance while Driving Productivity Gains* **Mark Richardson, Mark James** - LDRA, United Kingdom	*Tool D.3 Evaluation of a modeling and automatic C code generation toolset as an open source alternative solution* **William Fotso Kom, Xavier Querol** - ESG Automotive France, France
17:55-18:10	*Tool A.4 - A new UML tool-based Methodology for the Software Requirements Analysis* **Thomas Weyrath, Franz Schöttl** - Elektroniksystem - und Logistik-GmbH (ESG), Germany / **Herbert Schreyer** - Eurocopter Deutschland, Germany / **Berthold Schinnerl** - German armed forces, Germany			
19:00-23:00	GALA EVENING, PIERRE BAUDIS CONGRESS CENTER, / Room Caravelle			

PROGRAMME, FRIDAY 3 FEBRUARY 2012

09:00-10:00	Room Auditorium Saint Exupéry ***Keynote address: Towards a greener and more eco efficient aerospace industry*** **Denis CHAPUIS** - VP Research and Technology of EADS, France		
10:00-10:30	EXHIBITION VISIT / REFRESHMENT BREAK / Room Concorde		
10:30-12:30	***Session 7A*** ***Open-DO*** Room Auditorium Saint Exupéry	***Session 7B*** ***Model Based Process*** Room Guillaumet	***Session 7C*** ***Software Implementation*** Room Ariane 1
10:30-11:00	*7A.1 - Integrating Formal Program Verification with Testing* **Cyrille Comar, Johannes Kanig, Yannick Moy** - AdaCore, France	*7B.1 - Increasing intersystem functionalities validations efficiency thanks to Model Based Design* **Pedro Moreno-Lahore, Yves Touzeau, Olivier Guetta** - RENAULT, France	*7C.1 - Deterministic Execution Sequence in Component Based Multi-Contributor Powertrain Control Systems* **Denis Claraz** - Continental Automotive France S.A.S, Toulouse, France / **Stefan Kuntz, Gerhard Wirrer** - Continental Automotive GmbH, Regensburg, Germany / **Ulrich Margull**, 1 mal 1 Software GmbH - Germany / **Michael Niemetz** - University of Applied Sciences Regensburg, Germany
11:00-11:30	*7A.2 - Compilation of Heterogeneous Models: Motivations and Challenges* **Matteo Bordin** - AdaCore, France **Tonu Naks, Andres Toom** - IB Krates, Estonia **Marc Pantel** - IRIT-ENSEEIHT, Université de Toulouse, France	*7B.2 - Model-Based Engineering approach for system architecture exploration* **Julien Delange, Christophe Honvault, James Windsor** - European Space Agency, Netherlands	*7C.2 - Beyond Mutexes, Semaphores, and Critical Sections* **Serge Plagnol** - Green Hills Software, France
11:30-12:00	*7A.3 - Formalization and Comparison of MCDC and Object Branch Coverage Criteria* **Cyrille Comar, Jérôme Guitton, Olivier Hainque, Thomas Quinot** - Adacore, France	*7B.3 - Use of modelling methods and tools in an industrial embedded system project : works and feedback* **Anthony Fernandes Pires, Stéphane Duprat, Tristan Faure, Jack Beringuier, Jean-François Rolland** - Atos, France **Cédrik Besseyre** - Airbus, France	*7C.3 - A lightweight, code generated and fast IPC framework for C++ based applications* **Martin Kalisch, Peter Reitinger, Stefan Bitzer** - Continental Automotive Villingen, Germany **Valentin Uritescu** - Continental Automotive Timisoara, Romania
12:00-12:30	*7A.4 - Agility & Lean for Avionic Software* **Emmanuel Chenu** - Thales Avionics, France	*7B.4 - Formal Model Driven Engineering for Space Onboard Software* **David Lesens** - EADS Astrium Space Transportation, France / **Eric Conquet** - ESA, France / **Francois-Xavier Dormoy** - Esterel Technologies, France / **Iulia Dragomir, Iulian Ober** - IRIT, France / **Piotr Nienaltowski** - Altran-Praxis, United Kingdom	*7C.4 - An ASN.1 compiler for embedded/space systems* **George Mamais, Thanassis Tsiodras** - Semantix, Greece **David Lesens** - Astrium Space Transportation, France **Maxime Perrotin** - ESTEC, Netherlands

12:30-13:30	EXHIBITION VISIT/ LUNCH / Room Caravelle	
13:30-14:30	**Panel Smart energy management** **Session Chair: Louis Claude VRIGNAUD**, Continental Automotive- France **Panelists: Jean-Luc MATÉ**, Continental automotive - France / **Etienne FOCH**, Airbus - France **Jean-Luc DORMOY**, EDF Group - France Room Auditorium St Exupéry	
14:40-16:10	*Session 8A* *Safety & Security* Room Auditorium St Exupéry	*Session 8B* *Model Based Testing* Room Guillaumet	*Session 8C* *Diagnosis & Prognosis* Room Ariane 1
14:40-15:10	*8A.1 - Security and Safety Assurance for Aerospace Embedded Systems* **Pierre Bieber** - Onera, France / **Jean-Paul Blanquart** - Astrium, France / **Gilles Descargues, Gabrielle Sarouille** - Thales, France / **Michael Dulucq** - SERMA Technologies, France / **Yannick Fourastier** - EADS France, France / **Eric Hazane** - EADS Cassidian Apsys, France / **Mathias Julien** - Altran, France / **Laurent Léonardon** - Rockwell-Collins France	*8B.1 - ISO 26262 Compliant Automatic Requirements-Based Testing for TargetLink models and generated code* **Udo Brockmeyer, Adrian Valea** - BTC Embedded Systems AG, Germany **Markus Gros** - dSPACE SARL, France	*8C.1 - Online model adaptation for aircraft operational reliability assessment* **Kossi Tiassou, Karama Kanoun, Mohamed Kaaniche** - LAAS-CNRS, France **Christel Seguin** - ONERA, France **Chris Papadopoulos** - AIRBUS Operations Ltd, United Kingdom
15:10-15:40	*8A.2 - Similarities and dissimilarities between safety levels and security levels* **Jean-Paul Blanquart** - Astrium Satellites, France / **Pierre Bieber** - Onera, France / **Gilles Descargues** - Thales DAE, France / **Eric Hazane** - EADS APSYS, France / **Mathias Julien** - Altran, France / **Laurent Leonardon** - Rockwell Collins France	*8B.2 - DIVERSITY-TG: Automatic Test Case Generation from Matlab/Simulink models* **Diane Bahrami, Alain Faivre, Arnault Lapitre** - CEA, LIST, LISE Laboratory, France	*8C.2 - Hybrid Causal Model Based Diagnosis. Application to Automotive Embedded Functions.* **Renaud Pons, Audine Subias, Louise Travé-Massuyès** - LAAS-CNRS, France
15:40-16:10	*8A.3 - Secure architecture for information systems in avionics* **Maxime Lastera, Eric Alata, Jean Arlat, Yves Deswarte, David Powell** - CNRS ; LAAS, France / **Bertrand Leconte** - AIRBUS Operations SAS, France / **Cristina Simache** - ALTRAN SUD OUEST, France	*8B.3 - Application of Model-Based Testing on a Railway Project* **Mathieu Steiner, Anthony Faucogney, Valerie Bouquet** - ALL4TEC, France	
16:20-16:50	*Closing session* / Room Auditorium St Exupéry **Christel SEGUIN**, SEE/ONERA & Organising General Co-Chair **Francis GUIMERA**, 3AF Midi-Pyrénées & Organising General Co-Chair	

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