



B2007



FINAL PROGRAM

The 7th International Conference of B Users

16th January - 19th January 2007



Conference Program

Tuesday 16 January

- 14h **Tutorial by** Laurent Voisin, Swiss Federal Institute of Technology, Zurich, member of the European project Rodin (Rigorous Open Development Environment for Complex Systems) – chair: Olga Kouchnarenko

Wednesday 17 January

- 9h **Registration**
- 9h45 **Welcome Opening**
- 10h **Invited talk by** Joseph Morris, School of Computing, Dublin City University, Ireland – Plug and Play Nondeterminacy – chair: Didier Bert
- 11h **Coffee break**
- 11h30 **Session Theoretical issues** – chair: Didier Bert
- Interpreting Invariant Composition in the B Method Using Spec# ownership relation: a way to explain and relax B restrictions
Sylvain Boulmé and Marie-Laure Potet, U. of Grenoble - France
 - Chorus Angelorum
Steve Dunne, U. of Teesside – UK
- 12h30 **Presentation of tool exhibitions** by Fabrice Bouquet
- 12h45 **Tool session** – chair: Marc Frappier
- JML2B: Checking JML Specifications with B machines
Fabrice Bouquet, Frédéric Dadeau and Julien Gros Lambert, U. of Franche-Comté - France
- 13h **Lunch**
- 14h30 **Session B extensions** – chair: Michael Butler
- Augmenting B with Control Annotations
Wilson Ifill, Steve Schneider and Helen Treharne, U. of Surrey – UK
 - Justifications for the Event-B Modelling Notation
Stefan Hallerstede, ETH Zürich - Switzerland
- 15h30 **Tool session** – chair: Fabrice Bouquet
- A Generic Flash-based Animation Engine for ProB
Jens Bendisposto and Michael Leuschel, U. of Düsseldorf, Germany
 - The B extensible Eclipse Editing Environment
Jens Bendisposto and Michael Leuschel, U. of Düsseldorf, Germany
- 16h **Coffee break and Demos**
- 16h30 **Session B Tools, tests and model-checking** – chair: Françoise Bellegarde
- Automatic Translation from Combined B and CSP Specification to Java Programs
Letu Yang and Michael Poppleton, U. of Southampton – UK
 - Symmetry Reduction for B by Permutation Flooding
Michael Leuschel and Corinna Spermann, U. of Düsseldorf– Germany
Michael Butler and Edward Turner, U. of Southampton – UK
 - Instantiation of Parameterized Data Structures for Model-Based Testing
Fabrice Bouquet, Jean-François Couchot, Frédéric Dadeau and Alain Giorgetti, U. of Franche-Comté – France
- 18h **End of session**
- 18h30 **Reception in the town hall**

Thursday 18 January

- 9h **Invited talk by** Leslie Lamport, Microsoft corporation – Comparing TLA+ and B – chair: Dominique Méry
- 10h **Session B extensions** – chair: Dominique Méry
- Verification of LTL Properties in B Event Systems
Julien Gros Lambert, U. of Franche-Comté - France
- 10h30 **Coffee break and Demos**
- 11h **Session Case studies and specification method** – chair: Ken Robinson
- Design Patterns for B: Bridging Formal and Informal Development
Edward Chan, Ken Robinson and Brett Welch, U. of New South Wales – Australia
 - Time Constraint Patterns in Event B Development
Dominique Cansell, Dominique Méry, Joris Rehm, U. of Nancy – France
 - Modelling and Proof Analysis of Interrupt Driven Scheduling
Bill Stoddard and Frank Zeyda, U. of Teesside – UK
Dominique Cansell, U. of Metz – France
- 12h30 **Lunch**
- 14h **Industrial event: Invited talk by** Eddie Jaffuel, Leirios Technologies - France
Using B Machines for Model-Based Testing of Smartcard Software – chair: Marie-Laure Potet
- 15h **Session Industrial experiences** – chair: Marie-Laure Potet
- Experiences in Using B and UML in Industrial Development
Ian Oliver, Nokia Research Center - Finland
 - B in Large-Scale Projects: The Canarsie Line CBTC Experience
Daniel Dollé, Didier Essamé, SIEMENS Transportation Systems - France
- 16h **Coffee break and Demos**
- 16h30 **Session Industrial experiences** – chair: Marina Waldén
- A Tool for Firewall Administration
Mathieu Clabaut, Systerel – France
 - The B-Method for the Construction of Microkernel-Based Systems
Sarah Hoffmann and Sophie Gabriele, STMicroelectronics - France
 - Hardware Verification and Beyond: Using B at AWE
Neil Evans and Wilson Ifill, Atomic Weapons Establishment - UK
- 18h **End of Industrial Event**
- 18h30 **Visit of Time Museum**
- 20h **Conference dinner**

Friday 19 January

- 9h **Invited talk by David Chemouil, CNES, Toulouse, The Design of Spacecraft on-Board Software – chair: Mamoun Filali**
- 10h **Tool session – chair: Daniel Dollé**
- BRAMA: a New Graphic Animation Tool for B Models
Clearsy - France
 - LEIRIOS Test Generator: Automated Test Generation From B models
Eddie Jaffuel and Bruno Legeard, LEIRIOS Technologies - France
- 10h45 **Coffee break**
- 11h15 **Session Integration and Derivation – chair: Steve Dunne**
- Refinement of Statemachines using Event B Semantics
Colin Snook, U. of Southampton – UK and Marina Waldén, U. of Turku – Finland
 - Formal Transformation of Platform Independent Models into Platform Specific Model
Pontus Boström, Mats Neovius, Marina Waldén, U. of Turku and, Ian Oliver, NOKIA – Finland
 - Refinement of EB3 Process Patterns into B Specifications
Frédéric Gervais, CNAM-IIE, Régine Laleau, U. of Paris 12 – France
Marc Frappier, U. of Sherbrooke – Canada
- 12h15 **Demos**
- 12h30 **Lunch**
- 14h **Invited talk by Paul Gibson, National University of Ireland, Maynooth – e-voting and the need for rigorous software engineering - the past, present and future – chair: Dominique Cansell**
- 15h **Tool session – chair: Dominique Cansell**
- A JAG Extension for Verifying LTL Properties on B Event Systems
Julien Gros Lambert, U. of Franche-Comté - France
 - Meca: Tool for Access Control Models
Amal Haddad, U. of Grenoble - France
- 15h30 **Session Security policy verification – chair: Helen Treharne**
- Security Policy Enforcement through Refinement Process
Nicolas Stouls, Marie-Laure Potet, U. of Grenoble – France
 - Integration of Security Policy into System Modeling
Nazim Benaissa, Dominique Cansell and Dominique Méry, U. of Nancy – France
- 16h30 **Closing session**
- 17h **End of the Conference**