4th ABZ conference
June 4-6
Toulouse

Wednesday June 4th

8h30 – 9h:00 : *Registration*

9h00 – 9h15 : *Opening and welcome*

9h30 – 10h30: *Invited Talk 1*
TLA+ for Non-Dummies. Leslie Lamport

10h30 – *11h00 :Coffee Break*

11h00 – 13h00: *Session 1*
Why Amazon Chose TLA+. Chris Newcombe

Translating B to TLA+ for Validation with TLC. Dominik Hansen and Michael Leuschel

aRby—An Embedding of Alloy in Ruby@. Aleksandar Milicevic, Ido Efrati and Daniel Jackson

MAZE: An extension of Object-Z for multi-agent systems. Graeme Smith and Qin Li

13h00 – 14h00 : *Lunch*

14h00 – 15h00: *Invited Talk 2*
The Rodin Platform Has Turned Ten. Laurent Voisin and Jean-Raymond Abrial

15h00 – *15h30 :Coffee Break*

15h30 – 17h45 : *Session 2*
Quasi-Lexicographic Convergence. Stefan Hallerstede

Towards B as a High-Level Constraint Modelling Language: Solving The Jobs Puzzle Challenge. Michael Leuschel and David Schneider

Short Papers.
B Formal Validation of ERTMS/ETCS Railway Operating Rules. Rahma Ben Ayed, Simon Collart-Dutilleul, Philippe Bon, Akram Idani and Yves Ledru

Analysis of Self- and P2P Systems using Refinement*. Manamiary Bruno Andriamiarina, Dominique Mery and Neeraj-Kumar Singh

Modelling Energy Consumption in Embedded Systems with VDM-RT. José Antonio Esparza Isasa, Peter Würtz Vinther Jørgensen, Claus Ballegård Nielsen and Stefan Hallerstede

Sealed Containers in Z. Eerke Boiten and Jeremy Jacob

The BWare Project: Building a Proof Platform for the Automated Verification of B Proof Obligations. David Delahaye, Catherine Dubois, Claude Marché and David Mentré

19h00: Cocktail at the Capitole.
Salle Gervais – City Hall of Toulouse

Thursday June 5th

08h30 – 10h00: *Session 3*
The Landing Gear System Case Study. Frédéric Boniol and Virginie Wiels

Aircraft Landing Gear System: Approaches with Event-B to the Modeling of an Industrial System. Wen Su and Jean-Raymond Abrial

Modeling and Analyzing using ASMs: the Landing Gear System case study. Paolo Arcaini, Angelo Gargantini and Elvinia Riccobene

10h00 – 10h30 *:Coffee Break*

10h30 – 12h00: session 4
Context-aware Verification of a Landing Gear System. Philippe Dhaussy and Ciprian Teodorov

Validation of the ABZ Landing Gear System using ProB. Dominik Hansen, Lukas Ladenberger, Harald Wiegard, Jens Bendisposto and Michael Leuschel

Modeling a Landing Gear System in Event-B. Amel Mammar and Régine Laleau

12h00 – 13h00 : *Lunch*

13h15–15h45: session 5
Offline Model-based Testing and Runtime Monitoring of the Sensor Voting Module. Paolo Arcaini, Angelo Gargantini and Elvinia Riccobene

Model-Checking Real-Time Properties of an Airplane Landing Gear System Using Fiacre. Bernard Berthomieu, Silvano Dal Zilio and Lukasz Fronc
The Landing Gear Case Study in Hybrid Event-B. Richard Banach

Short Papers.
Landing Gear System: An ASM-based Solution for the ABZ Case Study. Felix Kossak

Co-simulation Environment for Rodin: Landing Gear Case Study. Vitaly Savicks, Michael Butler and John Colley

Modelling an Aircraft Landing System in Event-B. Dominique Mery and Neeraj Singh

Wrapup.
Wrapup of the landing gear case study. Egon Boerger

15h30 – 23h00 : *Social Event.*
A panel discussion moderated by Egon BÖRGER will take place at the restaurant at 19h00

Distributed systems as new challenges for proof and refinement state-based rigorous methods

Panelist: Jean-Raymond Abrial, Dominique Méry, Andreas Prinz, Gerhart Schellhorn, Klaus-Dieter Schewe, Laurent Voisin.

Friday June 6th

08h30 – 09h30: *Invited Talk 3*
Development of a Verified Flash File System
Gerhard Schellhorn, Gidon Ernst, Jörg Pfähler, Dominik Haneberg and Wolfgang Reif

09h30 – 10h30 : *Session 6*

Distributed Situation Analysis: A formal semantic framework
Narek Nalbandyan, Uwe Glässer, Hamed Yaghoubi Shahir and Hans Wehn

Specifying Transaction Control to Serialize Concurrent Program Executions
Egon Börger and Klaus-Dieter Schewe

10h30 – *11h00 :Coffee Break*

11h00 – 12h45 : *Session 7*

Introducing Aspect–Oriented Specification for Abstract State Machines
Marcel Dausend and Alexander Raschke

Modular Refinement for Submachines of ASMs. Gidon Ernst, Jörg Pfähler, Gerhard Schellhorn and Wolfgang Reif

Short Papers.

Towards ASM-based formal specification of self-adaptive systems. Elvinia Riccobene and Patrizia Scandurra

Distributed ASM - Pitfalls and Solutions. Andreas Prinz and Edel Sherratt

WebASM: an Abstract State Machine execution environment for the Web. Simone Zenzaro, Vincenzo Gervasi and Jacopo Soldani

12h45 – 13h45 : *Lunch*

13h45 –15h15: session 8

Formal System Modelling Using Abstract Data Types in Event-B. Andreas Fürst, Thai Son Hoang, David Basin, Naoto Sato and Kunihiko Miyazaki

Formal Derivation of Distributed MapReduce. Inna Pereverzeva, Michael Butler, Asieh Salehi Fathabadi, Linas Laibinis and Elena Troubitsyna

Validating the RBAC ANSI 2012 Standard using B. Nghi Huynh, Marc Frappier, Amel Mammar, Regine Laleau and Jules Desharnais

15h15-15h30. Break

15h30 – 17h00. Short Papers. Parallel session 9

Invariant Guided System Decomposition. Richard Banach

Understanding and Planning Event-B Refinement through Primitive Rationales. Tsutomu Kobayashi, Fuyuki Ishikawa and Shinichi Honiden

Templates: Re-use and Configuration for Event-B Code Generation. Andrew Edmunds

Tuning the Alt-Ergo SMT Solver for B Proof Obligations. Sylvain Conchon and Mohamed Iguernelala

Fixed-Point Arithmetic Modeled in B Software Using Reals. Jérôme Guery, Olivier Rolland and Joris Rehm

17h00. ABZ2014 Closing.

15h30 – 17h00. Short Papers. Parallel session 10

Bounded Model Checking of Temporal Formulas with Alloy
Alcino Cunha

Formal Verication of OS Security Model with Alloy and Event-B. Petr Devyanin, Victor Kuliamin, Alexander K. Petrenko, Alexey Khoroshilov and Ilya Shchepetkov

Detecting Network Policy Conflicts using Alloy. Ferney Maldonado, Jaime Chavarriaga and Yezid Donoso

Staged Evaluation of Partial Instances in a Relational Model Finder. Vajihollah Montaghami and Derek Rayside

Domain-Specific Visualization of Alloy Instances
Pierre Kelsen and Loïc Gammaitoni

Optimizing Alloy for Multi-Objective Software Product Line Configuration. Ed Zulkoski, Chris Kleynhans, Ming-Ho Yee, Derek Rayside and Krzysztof Czarnecki