

# Tenth Biennial Ptolemy Miniconference

November 7, 2013

<http://ptolemy.org/ptconf>

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| 8:00 am to 8:30 am   | Continental Breakfast  |
| 8:30 am to 9:00 am   | <i>Ptolemy Miniconferences</i> , <b>Edward Lee</b> (Berkeley)  |
| 9:00 am to 9:20 am   | Aspect Oriented Models and CPS, <b>Patricia Derler</b> (Berkeley)  |
| 9:20 am to 9:40 am   | Aspect-Oriented Fault Modeling and Anomaly Detection, <b>Ilge Akkaya</b> (Berkeley)  |
| 9:40 am to 10:00 am  | Attack Modeling in Ptolemy: Towards a Secure Design for Cyber-Physical Systems, <b>Armin Wasicek</b> (Berkeley)  |
| 10:00 am to 10:30 am | Break  |
| 10:30 am to 10:50am  | Developing Faithful Models of Body Sensor Networks, <b>Philip Asare, John Lach,</b> and <b>John A. Stankovic</b> (University of Virginia)  |
| 10:50 am to 11:10am  | Light-Weight Synthesis of Ptolemy Diagrams with KIELER, Ulf Ruegg, Christian Schneider, <b>Christoph Daniel Schulze, Miro Sponeman, Christian Motika,</b> and <b>Reinhard von Hanxleden</b> (University of Kiel) |
| 11:10 am to 11:30am  | Modeling user interfaces with Cal and Ptolemy, <b>Hallvard Traetteberg</b> (Norwegian University of Science and Technology)  |
| 11:30 am to 12:00 pm | <i>90 second Poster Tweets</i>   |
| 12:00 pm to 2:20 pm  | Working Lunch and Poster Session   |
| 2:20 pm to 2:40 pm   | Efficient Schedulability Testing for Ptides, <b>Christos Stergiou</b> (Berkeley)   |
| 2:40 pm to 3:00 pm   | A Formal Analysis of the Ptolemy II Type System, <b>Chris Shaver, Marten Lohstroh</b> (Berkeley)   |
| 3:00 pm to 3:20pm    | Web Service Architecture for Composable, Interdisciplinary Applications, <b>Elizabeth Latronico</b> (Berkeley)   |
| 3:20 pm to 3:40 pm   | Break  |
| 3:40 pm to 4:00 pm   | <i>BPDF: A Statically Analyzable Dataflow Model with Integer and Boolean Parameters</i> , <b>Vagelis Bebelis, Pascal Fradet, Alain Girault,</b> and <b>Bruno Lavigueur</b> (INRIA)                               |
| 4:00 pm to 4:20 pm   | <i>System-level Synthesis of Dataflow applications for FPGA-based distributed systems</i> , <b>Hugo Andrade</b> (National Instruments)   |
| 4:20 pm to 4:40pm    | <i>Dataflow in the Data Center</i> , <b>Adam Cataldo</b> (Wealthfront)   |
| 4:40 pm to 5:00 pm   | <i>The Ptolemy Project: Advancing System Design</i> , <b>Edward A. Lee</b> (Berkeley)  |
| 5:15 pm to 8:00 pm   | Reception and Dinner, The Faculty Club, Heyns room<br>Dinner Speaker: <b>Chamberlain Fong</b> : Claudius Ptolemaeus, Geographer  |

## Posters

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| <b>Ilge Akkaya</b>   | Berkeley  | <i>Real-Time Machine Improvisation in Ptolemy II</i>   |
| <b>Rajiv Bannerjee</b>   | IIS Banglaore   | <i>Cyber Physical Systems – Rebirth of System Engineering</i>  |
| <b>David Broman</b>  | Berkeley  | <i>Precision Timed Compilers</i>   |
| <b>Liangpeng Guo</b>   | Berkeley  | <i>Bridging Functional and Architectural Aspects by Metro II Semantics</i>   |
| <b>Hokeun Kim</b>  | Berkeley  | <i>A Tool Integration Approach for Architectural Exploration of Aircraft Electric Power Systems</i>                        |
| <b>Eleftherios Matsikoudis, Christos Stergiou</b>  | Berkeley  | <i>The act Programming Language</i>  |
| <b>Christian Motika<sup>1</sup>, Steven Smyth<sup>1</sup>, Reinhard von Hanxleden<sup>1</sup>, Michael Mendler<sup>2</sup></b> | <sup>1</sup> University of Kiel<br><sup>2</sup> University of Bamberg | <i>SCCharts: Sequentially Constructive Charts</i>  |
| <b>Chris Shaver, Marten Lohstroh</b>   | Berkeley  | <i>Backward Type Inference</i>   |
| <b>Chris Shaver, Marten Lohstroh</b>   | Berkeley  | <i>Taxonomies of MoCs</i>  |
| <b>Stavros Tripakis</b>  | Berkeley  | <i>Determinate Composition of FMUs for Co-Simulation</i>   |
| <b>Gerald Wang</b>   | National Instruments  | <i>Communication Storage Optimization for SDF with Access Patterns under Periodic Scheduling and Throughput Constraint</i> |
| <b>Matt Weber</b>  | Berkeley  | <i>Self-Organizing Semantic Localization</i>   |
| <b>Edmund Widl, Wolfgang Muller, Elsheikh Atiyah, Peter Palensky</b>   | Austria Institute of Technology                                       | <i>Linking FMI-based components with Ptolemy II's Discrete Event Domain.</i>   |
| <b>Ben Zhang</b>   | Berkeley  | <i>Swarm-in-the-loop Simulation and Simulation-in-the-loop Swarm</i>   |
| <b>Michael Zimmer</b>  | Berkeley  | <i>Timing Predictable Processors as a Platform for Mixed-Criticality Systems</i>   |