MPLR 21: Managed Programming Languages and Runtimes

Wednesday 29 September 2021 - Thursday 30 September 2021
Alexander-von-Humboldt Haus, Münster, Germany

Programme
September 29
09:00: Local Registration
09:30: Opening
09:45: **Invited Talk**, Chair: Jeremy Singer
- Filip Pizlo: The Design and Implementation of JavaScriptCore
11:00: Coffee Break
11:30: **Session "Implementation Intricacies"**, Chair: Hanspeter Mössenböck
- Majid Makki, Dimitri Van Landuyt, Bert Lagaisse and Wouter Joosen: Shared Memory Protection in a Multi-tenant JVM
- Guillermo Polito, Pablo Tesone, Stéphane Ducasse, Luc Fabresse, Théo Rogliano, Pierre Misse-Chanabier and Carolina Hernandez Phillips: Cross-ISA Testing of the Pharo VM: Lessons learned while porting to ARMv8
- Abhiroop Sarkar, Robert Krook, Bo Joel Svensson and Mary Sheeran: Higher-Order Concurrency for Microcontrollers

13:00: Lunch
14:00: **Session "Data Delicacies"**, Chair: Herbert Kuchen
- Nicolas Stucki, Jonathan Immanuel Brachthäuser and Martin Odersky:< Virtual ADTs for Portable Metaprogramming
- Dan Graur, Rodrigo Bruno and Gustavo Alonso: Specializing Generic Java Data Structures
- Daniel Pekarek and Hanspeter Mössenböck: Architecture-Agnostic Dynamic Type Recovery

15:30: Coffee
16:30: Guided Tour through Münster
19:00: Conference Dinner (open end)

September 30
09:30: **Invited Talk**, Chair: Jeremy Singer
- Paul Harvey: The Toothbrush Made us Do It: The Telco Need for Dynamic Intelligent Runtimes

10:45: Coffee Break
11:00: **Session "Profiling Particularities"**, Chair: Baltasar Trancón Widemann
- Pablo Tesone, Guillermo Polito and Stéphane Ducasse: Profiling Code Cache Behaviour via Events
- Jacob Kreindl, Daniele Bonetta, Lukas Stadler, David Leopoldseder and Hanspeter Mössenböck: Low-Overhead Multi-Language Dynamic Taint Analysis on Managed Runtimes through Speculative Optimization
- Indigo Orton and Alan Mycroft: Tracing and its Observer Effect on Concurrency

12:30: Lunch
13:30: **Session "Coding Curiosities"**, Chair: Martin Plümicke
- Fernando Cristiani and Peter Thiemann: Generation of TypeScript Declaration Files from JavaScript Code
- Baltasar Trancón Y Widemann and Markus Lepper: LLJava Live at the Loop -- A Case for Heteroiconic Staged Meta-Programming
- Raphael Mosaner, David Leopoldseder, Lukas Stadler and Hanspeter Mössenböck: Using Machine Learning to Predict the Code Size Impact of Duplication Heuristics in a Dynamic Compiler
15:00: Coffee Break
15:30: Panel "Challenges and Opportunities of Managed Languages", Chair: Herbert Kuchen
16:15: Closing