

MPLR 21: Managed Programming Languages and Runtimes



Mittwoch, 29. September 2021 - Donnerstag, 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