

PARMA-DITAM Workshop PROGRAM

PARMA-DITAM 2020

**PARMA 2020: 11th Workshop on Parallel Programming and Run-Time Management
Techniques for Many-core Architectures**

**DITAM 2020: 9th Workshop on Design Tools and Architectures for Multi-Core Embedded
Computing Platforms**

Location: Room **Bianca A**

08:30 - 09:40 HiPEAC Keynote

09:40 - 09:55 European Commission talk

10:00 - 10:15 PARMA-DITAM Opening session

Chair: Muhammad Shafique, TU Wien

10:15 - 11:00 [Invited Talk] Tackling the MPSoC Data Locality Challenge for Distributed-Shared Memory Architectures

Andreas Herkersdorf, TUM

Chair: Cristina Silvano, PoliMi

11:00 - 11:30 Coffee Break

11:30 - 12:15 [Invited Talk] Adaptive Accelerators and Processor Architectures

Michael Hübner, BTU Cottbus

Chair: Giovanni Agosta, PoliMi

12:15 - 13:00 Paper Session A - Embedded Systems

Chair: Muhammad Shafique, TU Wien

12:15 - 12:30 Automated Precision Tuning in Activity Classification Systems: A Case Study

Nicola Fossati, Daniele Cattaneo, Michele Chiari, Stefano Cherubin and Giovanni Agosta

12:30 - 12:45 Fault-Tolerant Online Scheduling Algorithms for CubeSats

Petr Dobias, Emmanuel Casseau and Oliver Sinnen

12:45 - 13:00 Run-time Power Modelling in Embedded GPUs with Dynamic Voltage and Frequency Scaling

Jose Nunez-Yanez, Kris Nikov, Mohammad Hosseinabady and Kerstin Eder

13:00 - 14:00 Lunch

parma-ditam-workshop.github.io

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14:00 - 15:00 [Keynote] Designing & Programming Parallel Heterogeneous Architectures: a RISC-V perspective

Luca Benini, ETH Zurich and Università di Bologna

Chair: Muhammad Shafique, TU Wien

15:00 - 15:30 Paper Session B - Heterogeneous Systems

Chair: Dimitrios Soudris, NTUA

15:00 - 15:15 An OpenMP Parallel Genetic Algorithm for Design Space Exploration of Heterogeneous Multi-processor Embedded Systems

Vittoriano Muttillo, Paolo Giammatteo, Giuseppe Fiorilli and Luigi Pomante

15:15 - 15:30 Sparse Matrix-Dense Matrix multiplication on Heterogeneous CPU+FPGA Embedded System

Mohammad Hosseinabady and Jose Nunez-Yanez

15:30 - 16:00 Coffee Break

16:00 - 17:45 [Invited Talk] DeepHealth

José Flich Cardo, UPV

Chair: William Fornaciari, PoliMi

16:45 - 17:00 Closing and Final wrap-up

Chair: Giovanni Agosta, PoliMi

Paper presentations

We invite authors of accepted papers to prepare presentations with slides. Each paper presentation is scheduled to last at most 15 minutes. Time slot includes:

- **10 min oral presentation**
- 3 min Q&A
- 2 min technical setup & speaker introduction by Session chair.

Presenters should provide a short (no more than 3 lines) biography introduction to be handed to the Session chair at the beginning of the Session.

We additionally encourage presenters to prepare a PDF version of their presentation to be uploaded on the workshop website.