

# PARMA-DITAM Workshop PROGRAM

## PARMA-DITAM 2020

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

**DITAM 2020: 9<sup>th</sup> 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: Giovanni Agosta, PoliMi*

**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: William Fornaciari, PoliMi*

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](https://parma-ditam-workshop.github.io)

## PARMA-DITAM Workshop PROGRAM

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

*Luca Benini, ETH Zurich and Università di Bologna*

*Chair: Giovanni Agosta, PoliMi*

### 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 Muttillio, 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] Heterogeneous Support in DeepHealth Project

*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.