

15th Workshop on Parallel Programming and Run-Time Management Techniques for Many-Core Architectures

13th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms

PARMA-DITAM 2024, January 18, 2024, Munich, Germany

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ACM Classification 2012

Computer systems organization → Multicore architectures; Computer systems organization → Reconfigurable computing; Software and its engineering → Compilers

ISBN 978-3-95977-307-2

Published online and open access by

Schloss Dagstuhl – Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, Saarbrücken/Wadern, Germany. Online available at <https://www.dagstuhl.de/dagpub/978-3-95977-307-2>.

Publication date

March, 2024

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <https://portal.dnb.de>.

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Digital Object Identifier: 10.4230/OASlcs.PARMA-DITAM.2024.0

ISBN 978-3-95977-307-2

ISSN 1868-8969

<https://www.dagstuhl.de/oasics>

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ISSN 1868-8969

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Preface

This volume collects the papers presented at the 15th Workshop on Parallel Programming and Run-Time Management Techniques for Many-core Architectures, and the 13th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms (PARMA-DITAM 2024). The workshop is co-located with the 2024 edition of the HiPEAC conference and was held on the 18th of January, 2024, that took place in Munich, Germany.

The current trend towards many-core and the emerging accelerator-based architecture requires a global rethinking of software and hardware design, which turn out to be more than ever before strongly entangled.

The PARMA-DITAM workshop focuses on many-core architectures, parallel programming models, design space exploration, tools and run-time management techniques to exploit the features and boost the performance of such (possibly heterogeneous, (re-)programmable and/or (re-)configurable) many-core processor architectures from embedded to high performance computing platforms and cyber physical systems.

The scope of the PARMA-DITAM workshop include the following topics:

- T1: Parallel programming models, languages, and applications for many-core platforms
- T2: Compiler and virtualization techniques for novel computing architectures
- T3: Run-time modeling, monitoring, adaptivity, power and memory management
- T4: Design of heterogeneous and reconfigurable many-core architectures
- T5: Methodologies, design tools, and high-level synthesis for heterogeneous architectures
- T6: Hardware/software co-design and design space exploration
- T7: Case studies, success stories and applications applying T1–T6

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