

BigHPC 2026

International Workshop on Big Data and High-Performance Computing

Held in conjunction with Euro-Par 2026

 **August 24–25, 2026**

Call for Papers

The **BigHPC 2026 Workshop** represents a forum for researchers, practitioners, and industry experts working at the crossroads of **High-Performance Computing (HPC), Big Data, Artificial Intelligence, and heterogeneous computing infrastructures**.

As data- and AI-driven workloads increasingly dominate modern computing, the traditional boundaries between **HPC, cloud, and edge systems** are rapidly dissolving. Future platforms must confront fundamental challenges such as **data movement at scale, complex storage hierarchies, data locality, energy efficiency, and end-to-end performance optimization** across highly heterogeneous environments.

BigHPC 2026 aims to foster discussion on **end-to-end data/AI/HPC pipelines**, from algorithms and runtime systems to architectures and applications, with a strong emphasis on **real-world systems, reproducible performance evaluation, and cross-layer integration**.

In addition to mature research contributions, the workshop **explicitly encourages early-stage ideas, system reports, and industrial experience papers**, providing a dynamic venue for exchanging novel concepts, lessons learned, and forward-looking visions.

Topics of Interest

Topics of interest include, but are not limited to:

- HPC architectures and system software for big data and AI workloads
- Parallel and distributed algorithms for data-intensive computing
- High-performance storage systems, I/O stacks, and data placement strategies
- Data locality, data gravity, and memory hierarchy challenges
- Performance modeling, profiling, and optimization of data and AI pipelines
- AI/ML systems on HPC platforms: distributed training, inference, and workflows
- Integration of HPC with cloud and edge infrastructures

- Workflow management and orchestration across heterogeneous environments
 - Energy efficiency, sustainability, and performance-per-watt in large-scale systems
 - Hybrid classical–quantum workflows and quantum approaches for data-intensive computing (where relevant)
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Submission Types

BigHPC 2026 accepts **two types of contributions**:

1. Full Papers (10–12 pages, LNCS format)

- Original, unpublished research contributions
- Must not be under review elsewhere
- Accepted papers will be published in the **Euro-Par 2026 Workshop Proceedings (Springer LNCS)**
- Submissions must comply with LNCS formatting guidelines

2. Extended Abstracts – Paperless Contributions with Oral Presentation

- Work in progress, emerging ideas, system descriptions, or industrial experience
- May include previously published or ongoing work
- **Extended abstracts (6–9 pages)**
- Accepted contributions will be presented at the workshop but **will not appear in the LNCS proceedings**

Submission site: EasyChair

<https://easychair.org/conferences/?conf=europar2026workshops>

17 Important Dates (Anywhere on Earth – AoE)

- **Full Paper Submission Deadline:** May 15, 2026
 - **Extended Abstract / Paperless Deadline:** May 29, 2026
 - **Author Notification:** June 12, 2026
 - **Late Extended Abstract Deadline:** June 19, 2026 (*fast-track review*)
 - **Camera-Ready Deadline (full papers only):** July 10, 2026
 - **Workshop Dates:** August 24–25, 2026
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Organization

Workshop Chairs

- Massimo Cafaro, University of Salento, Italy
- Beniamino Di Martino, University of Campania, Italy
- William Fornaciari, Politecnico di Milano, Italy

Steering Committee

- Patrizio Dazzi (Chair), University of Pisa
- Marco Aldinucci, University of Turin
- Beniamino Di Martino, University of Campania
- William Fornaciari, Politecnico di Milano
- Marco Lapegna, University of Naples
- Rajaele Montella, University of Naples “Parthenope”
- Domenico Talia, University of Calabria
- Alessia Antelmi, University of Turin
- Emanuele Carlini, ISTI-CNR

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- Jacopo Massa (University of Pisa)
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- Diego Romano (ICAR-CNR)
- Luca Roversi (University of Turin)
- Fabrizio Silvestri (Sapienza University of Rome)
- Massimo Torquati (University of Pisa)
- Paolo Trunfio (University of Calabria)