UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

DOTTORATO DI RICERCA / PhD PROGRAM IN
INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Seminar announcement

Friday 19 December 2025, Time: 10:30 - 12:30
Room C2A, Floor 0, Building 3, DIETI - Via Claudio, 21 - NAPOLI

Dr. Marco Barletta

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Intelligence Across the Cloud-edge Continuum: the New Trends Reshaping LLM Deployment

Abstract: The recent race for AGI has pushed computing system requirements and performances to an unprecedented scale. Nonetheless, doubts legitimately emerge about the possibility of continuing to scale computing resources, interconnection capabilities, and the required power supplies without significant algorithmic breakthroughs.

This talk reviews the main workload characteristics of contemporary LLMs and LMMs from a system infrastructure perspective, highlighting the daily challenges that engineers of cloud providers have to face. I will (briefly) discuss the gaps between academic research and real-world systems, highlight recent trends in literature, provide a landscape of emerging alternatives, and forecast possible evolutions of LM systems and applications in the near future.

Lecturer short bio: *Dr. Marco Barletta received in 2025 his Ph.D. degree in Information Technology and Electrical Engineering at the Federico II University of Naples, Italy, which is also his hometown. He is currently a Senior Engineer working at the Huawei Technologies R&D Edinburgh Research Center, where he focuses on applied research for AI Infrastructure. With a research background in dependability assessment for real-time and mixed-criticality systems, his main expertise areas include cloud and edge architectures, spanning from high-performance computing systems, to embedded devices and Multi-Processor System-on-Chip.*

For information: Prof. Luigi De Simone (DIETI, UniNA) – luigi.desimone@unina.it *(organizer)*