PARIS LODRON UNIVERSITÄT SALZBURG

MARS

Models, Algorithms, Computers, and Systems

Series of Talks
WS 2023/24

A cooperation with SMC

Department of Mathematics
Department of Computer Science

Paris Lodron University Salzburg

Doctorate School PLUS
uni-salzburg.at/doktorat

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PARIS LODRON UNIVERSITÄT SALZBURG | Mathematics

PARIS LODRON UNIVERSITÄT SALZBURG | Computer Science

MARS – Models, Algorithms, Computers and Systems

Modern high tech research in science and technology requires an interdisciplinary approach. This applies particularly to wide areas of the methodological sciences mathematics and computer science, where, typically, several aspects of a chain of closely related fields of research are considered. These start with a mathematical model, continue with algorithmic problems, and finally cover aspects of the implementation on computers or high performance computing environments and therefore also issues related to the efficiency of computer systems.

MARS is a doctoral programme at the Doctorate School PLUS (DSP Programme), which is organized by the departments of mathematics and computer science of the Paris Lodron University Salzburg. Its objective is to educate doctoral students in the research fields models, algorithms, computers, and systems and also to achieve new insights and research findings especially with regard to the inter-dependency of these fields of research. The focus will be on important topics relevant for the Salzburg research site. MARS fields of research form particularly a cohesive and closely linked line of research and cover a wide spectrum of scientific interests.

Joint activities constitute the structured doctoral program in MARS. These include seminars with external guest speakers, one day workshops with external guests and multi day retreats away from the university, as well as summer schools on the topics of MARS. This Series of Talks is organized in cooperation with the Salzburg Mathematics Colloquium (SMC) and aims to broaden the view on several aspects of MARS.

Program

Efficiently maintaining and applying dynamic out-orientations.
Aleksander Bjørn Grodt Christiansen (Denmark)
October 17, 2023

Polynomials over $\mathbb{Z}$ and $\mathbb{Q}$: counting and freeness
Timothy Browning (ISTA, Klosterneuburg)
November 16, 2023

Matching in evolving graphs
Aditi Dudeja (Salzburg)
November 28, 2023

Mean curvature flow is everywhere!
Tim Laux (Regensburg)
November 30, 2023

The discontinuous Galerkin time stepping method – a resilient companion of parabolic evolution models
Thomas Wihler (Bern)
January 25, 2024

Website of the Doctorate School Plus:
https://www.plus.ac.at/doctorate-school-plus