



# MARS

Models, Algorithms, Computers and Systems



Series of Talks  
SS 2026

Start: 3 pm

Location: Lecture room 414, 1<sup>st</sup> floor  
Hellbrunner Straße 34

A cooperation with SMC

Department of Mathematics  
Department of Computer Science

## Contact

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Mathematics



Computer Science

## MARS – Models, Algorithms, Computers, and Systems

Modern high tech research in science and technology requires to a great extent an interdisciplinary approach. This applies particularly to wide areas of the methodological sciences mathematics and computer science, where generally one or more aspects of a chain of consecutive closely interlocked 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 on 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 sciences 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 from a methodological point 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.

## Program

April 23, 2026  
Thursday, 15:00-15:45  
Lecture room 414, 1<sup>st</sup> floor

### Linear Growth Everywhere

Franz Gmeineder (University of Konstanz)

Minimal surfaces, image denoising and the description of sea ice arise from very different contexts. Nevertheless, they are connected by a common principle: energies with linear growth.

In this talk, we outline progress from the last ten years toward a unifying theory. In so doing, we show the fruitful interplay of methods from analysis, algebra, and geometry.

## Coming...

**Low regularity time integration of dispersive problems**

Alexander Ostermann (University of Innsbruck)  
Mai 21, 2026