

Venue

University of Houston 4800 Calhoun Road Houston, TX 77204

Date & Location

Building: Class Room and Business Building Room: CBB 124 Dates: August 11 to August 15, 2025

Registration

You can apply to participate in this 2025 edition of the ChAMELEON summer school by filling out the form found at the summer school webpage (see QR code). Participation is free of charge. The application deadline for participants is July 14, 2025, 11:59 PM CST.

Principal Lecturer

Andreas Mang Department of Mathematics University of Houston andreas@math.uh.edu www.math.uh.edu/~andreas

Invited Speakers

Arvind Krishna Saibaba Department of Mathematics, NC State

Georg Stadler Courant Institute, New York University

ChAMELEON 2025

Computational and mAthematical MEthods in machine LEarning, Optimization and iNference Summer School

August 11 to August 15, 2025 Department of Mathematics, University of Houston

This one-week summer school focuses on topics related to Computational and mAthematical MEthods in machine LEarning, Optimization and iNference (ChAMELEON).

This first installment will introduce participants to mathematical techniques at the intersection of machine learning, inverse problems, and statistical inference, with an emphasis on numerical aspects. Mornings will include lectures that provide a foundational understanding of the field. Students will learn state-of-the-art approaches for solving both deterministic and statistical inverse problems of varying complexity. In the afternoons, participants will engage in hands-on assignments to gain practical experience. They will learn how to execute code on a modern high-performance computing architecture.

The conference will also feature research talks by leading scientist in the field. Depending on interest, there will also be the possibility to present research results during a poster session.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
0900 - 1030	Lecture 1	Lecture 3	Lecture 5	Lecture 7	Talks
1030 - 1100	Break	Break	Break	Break	Break
1100 - 1230	Lecture 2	Lecture 4	Lecture 6	Lecture 8	Talks
1230 - 1300	Q&A	Q&A	Q&A	Q&A	
1300 - 1400	Lunch	Lunch	Lunch	Lunch	
1430 - 1700	Hands-On	Hands-On	Hands-On	Hands-On	



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Support

This summer school is financially supported by NSF under the award DMS-2145845 and the Research Computing Data Core at the University of Houston.

