



Winter School

"Bridging multiscale, limited information, and low regularity in computational mathematics"

January 19 - 23, 2026

organized by

Steffen W. R. Werner, Emil Løvbak, Christian Döding, and Moritz Hauck

 $Time\ measurement:\ CET$

• Monday, January 19

08:30 - 09:00	Arrival and Registration
09:00 - 09:05	Welcome by HIM Director Stefan Müller (TBD)
09:05 - 10:00	Robert Scheichl An Introduction to Multiscale Methods and Localised Model Reduction (Part I)
10:00 - 10:30	Coffee break
10:30 - 12:00	Robert Scheichl An Introduction to Multiscale Methods and Localised Model Reduction (Part II)
12:00 - 14:00	Lunch break
14:00 - 15:30	Catherine Powell Parametric PDEs: Numerical Methods for Forward UQ & Surrogate Modelling (Part I)
15:30 - 16:00	Coffee break
16:00 - 17:30	Catherine Powell Parametric PDEs: Numerical Methods for Forward UQ & Surrogate Modelling (Part II)
after 17:30	$Get ext{-} Together$

• Tuesday, January 20

09:00 - 10:00	Robert Scheichl An Introduction to Multiscale Methods and Localised Model Reduction (Part III)
10:00 - 10:30	Group Photo and Coffee break
10:30 - 12:00	Robert Scheichl An Introduction to Multiscale Methods and Localised Model Reduction (Part IV)
12:00 - 14:00	Lunch break
14:00 - 15:30	Catherine Powell Parametric PDEs: Numerical Methods for Forward UQ & Surrogate Modelling (Part III)
15:30 - 16:00	Coffee break
16:00 - 17:30	Catherine Powell Parametric PDEs: Numerical Methods for Forward UQ & Surrogate Modelling (Part IV)

• Wednesday, January 21

09:00 - 10:00	Fabio Nobile Multilevel Monte Carlo methods for random differential equations (Part I)
10:00 - 10:30	Coffee break
10:30 - 12:00	Fabio Nobile Multilevel Monte Carlo methods for random differential equations (Part II)
12:00 - 14:00	Lunch break
14:00 - 15:30	Daniel Peterseim An Introduction to Quantum Algorithms for Multiscale PDEs (Part I)
15:30 - 16:00	Coffee break
16:00 - 17:30	Daniel Peterseim An Introduction to Quantum Algo- rithms for Multiscale PDEs (Part II)

• Thursday, January 22

09:00 - 10:00	Fabio Nobile Multilevel Monte Carlo methods for random differential equations (Part III)
10:00 - 10:30	Coffee break
10:30 - 12:00	Fabio Nobile Multilevel Monte Carlo methods for random differential equations (Part IV)
12:00 - 14:00	Lunch break
after 14:00	Social event with Dinner

• Friday, January 23

09:00 - 10:00	Daniel Peterseim An Introduction to Quantum Algorithms for Multiscale PDEs (Part III)
10:00 - 10:30	Coffee break
10:30 - 11:30	Daniel Peterseim An Introduction to Quantum Algorithms for Multiscale PDEs (Part IV)
11:30 - 13:30	Lunch break
13:30 - 14:30	Daniel Peterseim An Introduction to Quantum Algorithms for Multiscale PDEs (Part V)
14:30 - 15:00	Closing Remarks from the Organizers