

Plenary Lectures - Mathematics

Eric Cancès (École des Ponts Paris)	Conquering the quantum world: old problems and new challenges for the applied mathematics community
Maria Colombo (EPF Lausanne)	Infinite-width limit of deep linear neural networks
Sven Leyffer (Argonne National Labs)	Solving massive combinatorial optimization problems with PDE constraints
Karen E. Willcox (UT Austin, Oden Institute)	Enforcing physics structure in scientific machine learning: The role of projection-based reduced-order modeling

Plenary Lectures - Mechanics

Michael Beitel Schmidt (TU Dresden)	Dynamics and control of aerial manipulation
Stefanie Elgeti (TU Vienna)	Mixed-initiative engineering design
François Hild (ENS Paris-Saclay)	Contributions of 4D imaging in mechanics of materials
Kerstin Weinberg (U Siegen)	Dynamic fracture simulations with peridynamics and phase-field fracture

Special Lectures

Ludwig Prandtl Memorial Lecture

Laurette Tuckerman, Sorbonne Université

"Turbulent-laminar patterns"

Public Lecture (presented in German)

Peter Streitenberger, Otto-von-Guericke-Gesellschaft

Vakuum und Luftdruck - Otto von Guericke und die wissenschaftliche Revolution im 17. Jahrhundert (mit Vorführung von Guericke's "Magdeburger Experimenten")