| Plenary Lectures - Mathematics | |
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| **Valeria Simoncini** (University of Bologna) | *On the versatility of Krylov subspaces in modern matrix computations* |
| **Eduard Feireisl** (Czech Academy of Sciences Prague) | *Oscillatory solutions to problems in fluid mechanics: Analysis and numerics* |
| **Martin Burger** (FAU Erlangen-Nürnberg) | *Mathematical methods for changing networks - from neural to social* |
| **Jan Hesthaven** (EPFL) | *Non-intrusive Reduced Order Models through Neural Networks* |

| Plenary Lectures - Mechanics | |
|---|---|
| **Andres Kecskemethy** (University of Duisburg-Essen) | *Kinematics – Dead or alive? Some applications of kinematics in fast multibody dynamics, creative mechanism design, biomechanics and robotics* |
| **Ellen Kuhl** (Stanford University) | *Mechanics meets Machine Learning – What can we learn?* |
| **Claus-Dieter Munz** (University of Stuttgart) | *Sharp interface approximations for compressible two-phase flow with phase change* |
| **Bai-Xiang Xu** (TU Darmstadt) | *Multiphysics phase-field modeling and simulation of advanced materials and processing* |

| Special Lectures | |
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| **Ludwig Prandtl Memorial Lecture** | |
| **Tim Colonius** *(California Institute of Technology)* | *Structure and reduced-order-modeling of turbulence in the frequency domain* |
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| **Public Lecture** | |
| **Metin Tolan** *(University of Göttingen)* | *Geschüttelt, nicht gerührt: James Bond im Visier der Physik* |