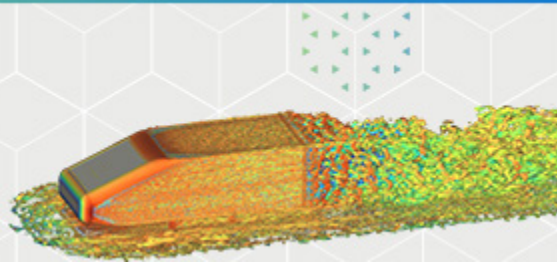


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HiFiLed Symposium 2022

Brussels, Belgium

December 14-16



We welcome you back in-person to the HiFiLeD Symposium 2022!

The HiFiLed Symposium will focus on topics ranging from issues concerning the complexity, reliability, accuracy, and uncertainties in generating high-fidelity LES/DNS data, to their application towards turbulence and transition modeling. It will include progress on the underlying high-order numerical methods (HOMs), innovative approaches for CPU acceleration for LES and DNS, exploitation of massive parallel architectures, efficient post-processing on massive parallel hardware, and innovative machine learning (ML) methods, as well as experimental data. Moreover, the symposium offers the opportunity to communicate and exchange knowledge for academic researchers, graduate students, and industrial engineers, as well as industrial R&D managers and consultants working in the fields of turbulent flow modeling, simulations, measurements, and multidisciplinary CFD applications.

Please visit the [HiFiLeD Symposium webpage](#) for further information. Accepted authors will be expected to travel to the symposium to present in person. Additionally, presenters will need to pay the registration fee for the symposium. Deadline for abstract submission is 5:00pm (CET) on Monday, October 31, 2022.

Contributions by participants are expected on the following topics:

- Understanding turbulence and transition from high-fidelity LES/DNS simulations
- Understanding turbulence and transition from new experimental data
- Advances in turbulence and transition modeling, based on LES/DNS databases
- Machine learning applications to LES/DNS analysis and modeling
- New LES/DNS data generation for reference configurations
- Applications of high-fidelity LES/DNS to industrial configurations
- Algorithmic and modeling issues for LES simulations, including wall-modeled LES (WMLES)
- Advances in high-order methods, including curved grid generation

- HPC-related issues on multiple platforms (CPU/GPU)

We are pleased to present our keynote speakers for the symposium:

- Ricardo Vinuesa (KTH Stockholm) – Modeling and Controlling Turbulent Flows Through Deep Learning
- Sylvain Laizet (Imperial College London) – Toward Exascale Scale-Resolving Simulations of Turbulent Flows on a Cartesian Mesh with High-Order Finite-Difference Schemes
- Cetin C. Kiris (NASA Ames Research Center) – Advancements in Scale Resolving Simulations for Certification by Analysis
- Kunal Puri (Cadence Belgium) – Towards Industrial High-Order Scale Resolving Simulations
- Chris Rumsey (NASA Langley) – Data-Driven Turbulence Modeling: Summary and Outcomes of the 2022 NASA Symposium

Mini-symposia are organized on the following topics:

- Turbulence Modeling – Suad Jakirlic (TU Darmstadt)
- Scale-Resolving Simulations – Oriol Lehmkuhl (Barcelona Supercomputing Center)
- Artificial Intelligence/Machine Learning in CFD – Corentin Lapeyre (Cerfacs)

Symposium registration will open in November. We look forward to meeting you at HiFiLeD Symposium 2022!

Questions? [Email us](#)



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