Solari Lecture 2022
Excellence and innovation in Wind Science and Engineering

Reduced-Order Models in Wind Engineering
Fundamentals and applications
Gianluigi Rozza - SISSA MathLab

Wind Engineers are continuously called to build simplified models of intricate problems. The so-called Reduced Order Models are useful to provide a deep insight into huge amount of experimental data harvested from wind tunnel tests or surrogate expensive high-fidelity models in uncertainty quantification, optimization or design-oriented applications. The lecture will provide a rigorous general modelling framework and discuss the past, present and future applications in bluff body aerodynamics and wind engineering.

The Italian Association for Wind Engineering (ANIV), under the umbrella of the International Association for Wind Engineering (IAWE), aims at celebrating and renewing Giovanni Solari's longest lasting legacy in innovating Wind Science and Engineering by excellent studies. The Solari Lectures are dedicated to emerging, innovative topics in and around the broad field of Wind Engineering, and present and future applications in bluff body aerodynamics and wind engineering.