Daniele Massaro

Short Curriculum Vitae

Personal Information

Date of Birth *Nov 21th, 1994*
Nationality Italian

Current position

Sept. 2019 - Present **PhD student at KTH Royal Institute of Technology**
SimEx/FLOW Engineering Mechanics, KTH, Stockholm
Supervisors: Prof. P.Schattler and Dr. S.Rezaeiravesh.
The project aims to investigate the physics of incompressible turbulent flows using direct numerical simulations (DNS) with Adaptive Mesh Refinement (AMR). In this framework, we use error measurement techniques to dynamically build up a mesh that resolves the smallest spatial scales. This enables to perform DNS at high Reynolds number and in complex geometries with a significant computational saving. Performing accurate simulations with AMR, we carry on an in-depth study of turbulent flows that still are far to be completely understood.

Education

June 2023 **Turbulence Workshop**
Universidad Politécnica de Madrid, Madrid, Spain
Summer workshop to understand whether the power of computers can be leveraged to untangle the causal dynamics of turbulence with the physics as final goal, organised by Prof. Javier Jiménez.

Mar. 2023 **Visiting Scholar**
The University of Manchester, Manchester, UK
Research in the application of Information Theory tools in wall-bounded turbulent flows to measure causal relations, under the supervision of Lect. S.Rezaeiravesh.

Nov. 2022 **Visiting Scholar**
Texas Tech University, Lubbock, Texas, USA
Research in large-scale coherent structures in wall-bounded flows at high Reynolds numbers, in Prof. F.Hussain's group.

Oct. 2016 - Apr. 2019 **Master of Science, Aeronautical Engineering**
Politecnico di Milano, Milan, Italy
Specialization in Aerodynamics with the thesis: 'Stability characteristics of wall-bounded flow with spanwise forcing'. Thesis supervisor: Prof. M.Quadrio.

Oct. 2013 – Sept. 2016 **Bachelor of Science, Aerospace Engineering**
Politecnico di Milano, Milan, Italy

Sept. 2008 – July. 2013 **High School Diploma**
Liceo Scientifico Statale Enrico Medi, Villafranca di Verona, Verona
Specialization in scientific P.N.I. (Piano Nazionale Informatica, 'National IT Program') which provided augmented lessons of maths, physics and computer science.

You are welcome to contact me if you would like to obtain my complete CV (dmassaro@kth.se).