



JOHNS HOPKINS
Center for Environmental
& Applied Fluid Mechanics



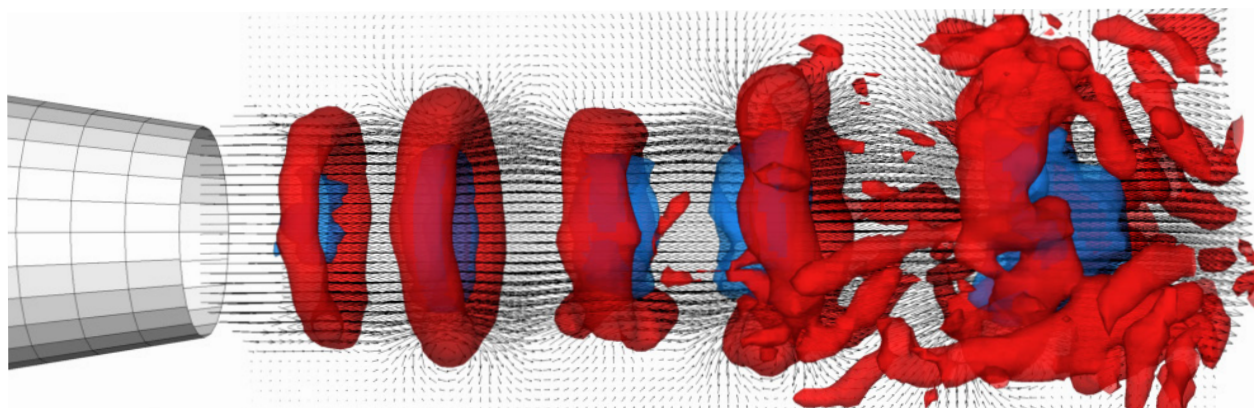
TOMOGRAPHIC PIV AND APPLICATIONS

Professor Fulvio Scarano

Aerospace Engineering Department, TU Delft, Netherlands

November 19, 21 & 22, 2013

JHU Homewood Campus – Shriver Hall – Clipper Room



Workshop Program

	Tuesday, Nov. 19th	Thursday, Nov. 21st	Friday, Nov. 22nd
11:00 AM - 1:00 PM	Tomographic PIV: Fundamental Principles	Data Post-Processing I: Pressure from PIV	Outlook on Future Developments: Time Supersampling by Vortex-in-Cell
2:00 PM - 4:00 PM	Tomographic PIV: Best Practice	Data Post-Processing II: Aeroacoustics	Applications: Wall Turbulence, Separated Flows, Jets

Speaker Biography



Prof. Scarano received his Aerospace Engineering degree at the University of Naples (cum laude, 1996), obtained his Ph.D. degree in 2000 for the research conducted at the von Karman Institute where he also received the Theodor von Karman prize. Shortly after he moved to the Aerodynamics Section of the Aerospace Engineering Department at TU Delft. Since 2010 he holds the Chair of Aerodynamics position in the Aerospace Engineering Department of TU Delft, where he also acts as director of the AWE department (Aerodynamics, Wind Energy, Flight Performance and propulsion). Recipient of Marie-Curie grant (1999), Dutch Science Foundation innovation grant (2005) and of the prestigious European Research Council grant (ERC, 2009). Since 2010 he coordinates the international consortium AFDAR (Advanced Flow Diagnostics for Aeronautical Research).

Prof. Scarano's research interests cover the development of particle image velocimetry (PIV) and its development to high-speed aerodynamics in the supersonic and hypersonic regime. Most notable contributions are the image deformation technique and the introduction of Tomographic PIV for 3D velocity measurements. He further advanced in interrogation techniques for image sequences with recent application to the quantitative determination of pressure fluctuations from time-resolved PIV. His research is currently heading towards the use of PIV for aero-acoustics research. He has authored more than 200 publications and delivered more than 20 keynote lectures.