



UNIVERSITÀ DEGLI STUDI DI GENOVA

**Dottorato in Fluidodinamica e Processi dell'Ingegneria Ambientale**  
**Progetto Marie Curie EST "FLUBIO"**

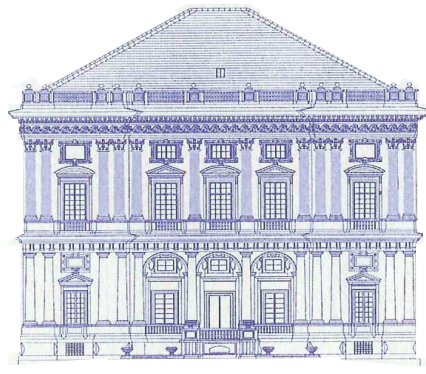
## AVVISO DI SEMINARIO

### **"Flexible micro-pillars : near-wall sensing and passive flow control"**

Prof. Christoph Brücker

Institute of Mechanics and Fluid Dynamics  
TU Freiberg, Germany

Martedì 7 Aprile, 2009 – ore 14.30  
Facoltà di Ingegneria,  
Aula A11  
Villa Giustiniani Cambiaso



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## **Flexible micro-pillars : near-wall flow sensing and passive flow control**

In this work, we describe the use and applications of flexible micro-pillars made from elastomers; initially conceived as sensory hairs for wall shear stress imaging, their role as actuators for ciliary transport and passive flow control has also been recently assessed. Both applications of the technique will be described. In particular, the interaction of micro-pillars with near wall events of turbulent boundary layers as well as their influence on transitional flow will be focussed upon.

## **Biographical sketch of Christoph Brücker**

Prof. Christoph Brücker achieved his PhD in Mechanical Engineering in 1993 at the Technical University in Aachen, receiving the Borchers medal. After a PostDoc position at the Von Karman Institute in Belgium he returned to Aachen and became Head of the Biofluid Mechanics Lab. After Habilitation (qualification as a University Lecturer), he was appointed in 2005 Professor at the Institute of Mechanics and Fluid Dynamics, and Chair for Fluid Dynamics and Fluid Machinery, at the Technical University of Freiberg. The author (or co-author) of over 70 articles in archival journals (*Physics of Fluids*, *Experiments in Fluids*, *Experimental Thermal and Fluid Fluid Science*, *Measurement Science and Technology*, *Artificial Organs*, etc.), Prof.'s Brücker's interests span from experimental methods, to bio-fluid mechanics, vortex dynamics, multiphase flows and environmental fluid mechanics.