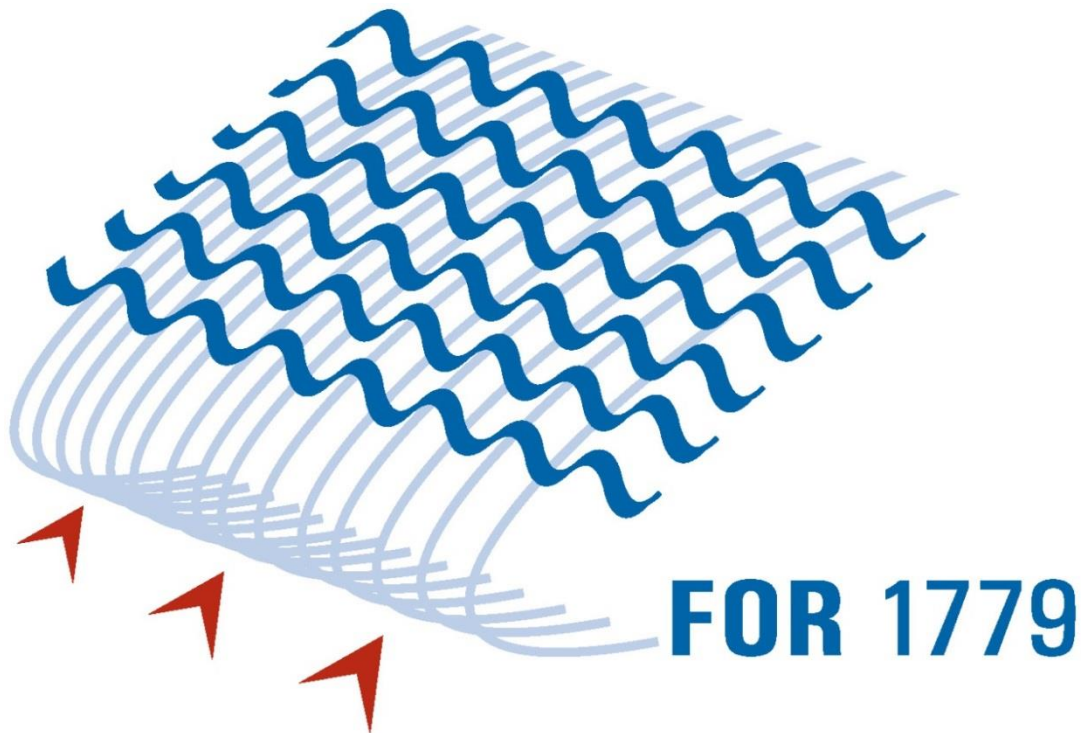


FOR 1779 Symposium

Active Drag Reduction

Aachen, Germany, 9-10 November 2015

An interdisciplinary symposium organized by
the DFG funded research unit FOR 1779
RWTH Aachen University, Forschungszentrum Jülich



The symposium will be held at:

NOVOTEL Aachen

Peterstrasse 66
52062 Aachen
Germany

Organizing Committee:

Wolfgang Schröder
Dirk Abel
Wolfgang Dahmen
Michael Klaas
Siegfried Müller
Matthias Meinke
Michael Schiek
Stefan van Waasen

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| Monday, 9 November 2015 | |
|--------------------------------|---|
| 08:30 - 08:45 | Welcome (W. Schröder) <i>FOR 1779: Active drag reduction via wavy surface oscillations</i> |
| 08:45 - 09:30 | S. L. Ceccio (University of Michigan) <i>Passive and Active Skin Friction Drag Reduction in Turbulent Boundary Layers</i> |
| 09:30 - 10:00 | D. Roggenkamp, W. Li, W. Jessen, M. Klaas, W. Schröder (RWTH Aachen) <i>Experimental investigation of friction drag over moving surfaces</i> |
| 10:00- 10:45 | M. Quadrio (Polytechnic University of Milan) <i>Turbulent drag reduction by spanwise forcing</i> |
| 10:45 - 11:15 | Coffee Break |
| 11:15 - 12:00 | K. Fukagata (Keio University) <i>Turbulent friction drag reduction by streamwise and spanwise traveling waves</i> |
| 12:00 - 12:30 | P. Meysonnat, M. Meinke, W. Schröder (RWTH Aachen) <i>Numerical investigation of friction drag via transversal wavy surfaces motions</i> |
| 12:30 - 13:00 | D. Gatti (Karlsruhe Institute of Technology) <i>Challenges in turbulent drag reduction via active means</i> |
| 13:00 - 14:00 | Lunch |
| 14:00- 14:45 | S. Bagheri (Royal Institute of Technology) <i>Flow control research at KTH</i> |
| 14:45 - 15:15 | L.Pyta, D. Abel (RWTH Aachen) <i>Reduction of friction drag in subsonic flow via feedback control</i> |
| 15:15 - 16:00 | M. Jovanovic (University of Minnesota) <i>Dynamics and control of wall-bounded shear flows</i> |
| 16:00 - 16:30 | Coffee Break |
| 16:30 - 17:15 | E. B. Castelan (Federal University of Santa Catarina) <i>On control and network systems</i> |
| 17:15 - 17:45 | M. Schiek (FZ Jülich) <i>New actuating systems and real-time network simulation for distributed surface actuation</i> |
| 17:45 - 18:15 | C. Kiefer (Saarland University) <i>Novel approach for flow manipulation by acoustic actuators</i> |
| 19:00 – 21:00 | Dinner |

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| Tuesday, 10 November 2015 | |
|----------------------------------|--|
| 08:15 - 09:00 | P. Ricco (University of Sheffield) <i>Turbulent drag reduction by hydrophobic surface with shear-dependent slip length</i> |
| 09:00 - 09:30 | G. Deolmi, S. Müller, W. Dahmen (RWTH Aachen) <i>Effective boundary conditions for compressible flows over rough boundaries</i> |
| 09:30 - 10:15 | A. Caiazzo (WIAS Berlin) <i>Multiscale modeling of elastic materials in harmonic regime and application to microscale structure estimation</i> |
| 10:15 - 10:45 | Coffee Break |
| 10:45 - 11:30 | B. Noack (Institut PPRIME, CNRS) <i>Closed-loop turbulence control using machine learning</i> |
| 11:30 - 12:00 | T. Beck (WKK TU Kaiserslautern), S. Stille (ThyssenKrupp) <i>Very high cycle fatigue (VHCF) behavior of riblet structured aluminum sheet materials in axial and bending loading</i> |
| 12:00 - 12:30 | M. Rütten (German Aerospace Center) <i>Experimental investigation of the influence of rotating discs on very-large structures in a turbulent boundary layer</i> |
| 12:30 - 13:00 | A. Banari, C. Janßen, T. Rung (Hamburg University of Technology) <i>GPGPU simulation of natural transition using Lattice Boltzmann Methods</i> |
| 13:00 - 14:00 | Lunch |

Registration:

Wenfeng Li : w.li@aia.rwth-aachen.de

Online:

www.aia.rwth-aachen.de/adr/symposium