

2015 Research Symposium on Environmental and Applied Fluid Dynamics
Tuesday, May 26, 2015
The George Washington University, 800 22nd Street NW, Washington, DC 20052

8:30am-9:00am	BREAKFAST AND WELCOME--Professor Michael W. Plesniak (Chair, Mechanical & Aerospace Engineering)
9:05am-9:50am	Keynote Lecture: J. Duncan (University of Maryland) presents: "On the generation of solitary gravity-capillary waves by a moving disturbance"

TECHNICAL SESSION I - Session Chair: A. Posa (The George Washington University)

9:50am-10:10am	Katherine E. Lukens (University of Maryland): "On the relation between storm tracks and North American precipitation in the boreal winter" (Professor E. Hugo Berbery)
10:10am-10:30am	Chao Sun (University of Maryland): "A new prognostic cloud cover scheme" (Professor Xin-Zhong Liang)
10:30am-10:50am	Daniel Junfeng Wang (The George Washington University): "A Compressible High-order Unstructured Spectral Difference Solver for Thermal Stratified Convection in the Sun" (Professor Chunlei Liang)
10:50am-11:05am	COFFEE BREAK

TECHNICAL SESSION II - Session Chair: Adrien Thormann (Johns Hopkins University)

11:05am-11:25am	Jin Lee (Johns Hopkins University): "Very-Large-Scale Motions in Wall-Turbulence" (Professor Tamer Zaki)
11:25am-11:45am	Andrew Trettel (University of Maryland): "How cooling affects high-speed turbulent boundary layers" (Professor Johan Larsson)
11:45am-12:05pm	Hangjian Ling (Johns Hopkins University): "High Resolution Velocity Measurements Within a Turbulent Boundary Layer over Superhydrophobic Surfaces" (Professor Joseph Katz)
12:05pm-12:25pm	Richard Stevens (Johns Hopkins University): "Large Eddy Simulation Wind Farm Studies and the Coupled Wake Boundary Layer Model" (Professor Charles Meneveau)
12:25pm-1:30pm	LUNCH BREAK

TECHNICAL SESSION III - Session Chair: Adam Sierakowski (Johns Hopkins University)

1:30pm-1:50pm	Matt Harrington (University of Maryland): "3D imaging of particle-scale rotational motion in granular flows" (Professor Wolfgang Losert)
1:50pm-2:10pm	Shizhao Wang (The George Washington University): "Direct simulations of turbulence interacting with particles of arbitrary shape" (Professor Ilias Balaras)
2:10pm-2:30pm	Yumo Wang (Johns Hopkins University): "Spatiotemporal Measurement and Modeling of Elastohydrodynamic Deformation of Elastomers" (Professor Joelle Frechette)
2:30pm-2:50pm	Moon Soo Lee (University of Maryland): "Direct numerical simulation of two-phase flow with phase change" (Professor Amir Riaz)
2:50pm-3:10pm	Amy McCleney (The George Washington University): "Multi-scale measurements in a turbulent jet" (Professor Philippe Bardet)
3:10pm-3:25pm	AFTERNOON BREAK

TECHNICAL SESSION IV- Session Chair: Shayandev Sinha (University of Maryland)

3:25pm-3:45pm	Albert Medina (University of Maryland): "Vortical trans-burst behaviors in rotating low-aspect ratio plates" (Professor Anya Jones)
3:45pm-4:05pm	Kouros Shoele (Johns Hopkins University): "Heat Transfer Enhancement and Energy Harvesting via Flow Induced Flutter" (Professor Rajat Mittal)
4:05pm-4:25pm	Noah Weichselbaum (The George Washington University): "Fluid Structure Interaction measurement on seismic shake table" (Professor Philippe Bardet)
4:25pm-4:45pm	Akash V. Dhruv (The George Washington University): "Viscous-Inviscid Methods in Unsteady Aerodynamic Analysis of Bio-Inspired Morphing Wings" (Professor Adam Wickenheiser)
4:45pm-5:05pm	Christian Lalescu (Johns Hopkins University): "Refinement of Navier-Stokes Direct Numerical Simulations" (Professor Gregory Eyink)
5:05pm-6pm	CLOSING RECEPTION

(Faculty Advisors indicated in parentheses)