School of Engineering & Applied Science
THE GEORGE WASHINGTON UNIVERSITY

UNIVERSITY OF MARYLAND 1856

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	Kourosh 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)