2016 Research Symposium on
Environmental and Applied Fluid Dynamics
May 20, 2016 • Homewood Campus

JOHNS HOPKINS
Center for Environmental
& Applied Fluid Mechanics

THE GEORGE WASHINGTON UNIVERSITY
SCHOOL OF ENGINEERING
AND APPLIED SCIENCE

UNIVERSITY OF MARYLAND

Symposium Program

Time	
8:30am - 9:00am	**BREAKFAST – OUTSIDE GILMAN HALL, ROOM # 50** **WELCOME** – Professor Charles Meneveau | Johns Hopkins University
9:05am - 9:50am	**Keynote Lecture: Professor Elias Balaras (George Washington University)** **Presents: "*Flow control over a bluff body using dimples*"**
	TECHNICAL SESSION I - Session Chair: **Jacopo Biasetti**
9:50am - 10:10am	**Cheng Li**: (JHU/Advisor: Joseph Katz) "*Measurements of droplet size spectra resulting from breaking waves acting on an oil slick*"
10:10am - 10:30am	**Ian Carr**: (GWU/Advisor: Michael Plesniak) "*Flow over a surface mounted hemisphere in a pulsatile freestream*"
10:30am - 10:50am	**Daniel Anderson**: (UMD/Advisors: Russ Dickerson & Ross Salawitch) "*A tropical, tropospheric source of high ozone/low water structures*"
10:50am - 11:05am	**COFFEE BREAK – OUTSIDE GILMAN HALL, ROOM # 50**
	TECHNICAL SESSION II - Session Chair: **Daniel Willen**
11:05am - 11:25am	**Chen Friedman**: (GWU/Advisor Murray Snyder) "*Measurements of dynamic interface between ship and helicopter air wakes*"
11:25am - 11:45pm	**David W. Murphy**: (JHU/Advisor: Joseph Katz) "*Turbulent crude oil plumes in crossflow: effect of counter-rotating vortex pair structures on oil residence in plume*"
11:45pm - 12:05pm	**Erin Lynch**: (UMD/Advisors: Eugenia Kalnay, Kayo Ide, & Surja Sharma) "*Forecasting magnetic field variations in the high latitude ionosphere using ensemble transform kalmon filter in embedded space*"
12:05pm - 12:25pm	**Ismail Hameduddin**: (JHU/Advisor: Dennice Gayme) "*Scaling of energy amplification in the weak and strong elastic limits of viscoelastic shear flows*"
12:25pm - 12:45pm	**Colin Parker**: (GWU/Advisor: Megan Leftwich) "*The flow surrounding a vertical axis wind turbine*"
12:45pm - 1:40pm	**LUNCH BREAK: - HODSON HALL, 2ND FLOOR LOBBY**
	TECHNICAL SESSION III - Session Chair: **François Cadieux**
1:40pm - 2:00pm	**Francis Lagor**: (UMD/Advisor: Derek Paley) "*Estimation of a two-vortex flow field using an observability-guided lagrangian sensor*"
2:00pm - 2:20pm	**Bin Zhang**: (GWU/Advisor: Chunlei Liang) "*A novel parallel high-order computational framework for simulations of two and three dimensional flows around rotating/moving objects*"
2:20pm - 2:40pm	**Eshwan Ramudu**: (JHU/Advisor: Anand Gnanadesikan) "*Turbulent heat exchange between water and ice at an evolving ice-water interface*"
2:40pm - 3:00pm	**Naeem Masnadi**: (UMD/Advisor: James Duncan) "*On the viscous decay of gravity-capillary lumps*"
3:00pm - 3:15pm	**AFTERNOON BREAK – OUTSIDE GILMAN HALL, ROOM # 50**
	TECHNICAL SESSION IV - Session Chair: **Jin Lee**
3:15pm - 3:35pm	**Xiang Yang**: (JHU/Advisor: Charles Meneveau) "*High-order statistics and random additive model for turbulent boundary layers*"
3:35pm - 3:55pm	**Abhilas Reddy Malipeddy**: (GWU/Advisor: Kausik Sarkar) "*Computation of viscoelastic drop deformation*"
3:55pm - 4:15pm	**Joseph Andrews**: (UMD/Advisor: Siddhartha Das) "*Molecular simulations of water drop dynamics on graphene-coated solids*"
4:15pm - 4:35pm	**Maylis Landeau**: (JHU/Advisor: Peter Olson) "*Fragmentation and impacts in liquid-liquid systems: planet formation in the lab*"
4:35pm - 4:55pm	**Simon Clement**: (GWU/Advisor: Philippe Bardet) "*Index matched PIV in linearly stratified flow*"
4:55pm - 5:15pm	**Daanish Maqbool**: (UMD/Advisor Chris Cadou) "*An acoustic analysis of valveless pulsejet engines*"
5:15pm - 6:30pm	*CLOSING RECEPTION – GILMAN HALL ATRIUM*