



ONR MURI Review Meeting

ONR Code 331 Meeting September 29-30, 2015 in Princeton, NJ

Tuesday, September 29, 2015
Civil Engineering Faculty Lounge, E219

Time	Content	Presenter
8:00 – 8:30	Registration	
8:30 – 8:45	Opening Remarks	Ki-Han Kim (ONR)
8:45 – 9:00	Project Overview A	Steve Ceccio (Michigan)
9:00 – 9:15	Project Overview B	Lex Smits (PU)
9:15 – 9:45	Mechanically durable SLIPS coatings	Joanna Aizenberg (Harvard)
9:45 – 10:15	Reforming Nanostructured Boehmite SLIPS	Mughees Khan (Harvard)
10:15 – 10:45	Thermal repair of SLIPS on industrial materials and slippery rough surfaces	Tak Sing Wong, Simon Dai (Penn State)
10:45 – 11:15	COFFEE BREAK	
11:15 – 11:45	Correct Texture Design and Prediction for Superhydrophobic Drag Reduction	K. Golovin/A. Tuteja (UM)
11:45 – 12:15	Drag reduction on SHS textured with triple length scales	W. Choi (UT Dallas)
12:15 – 12:45	Surface design collaborations	Joanna Aizenberg (Harvard)
		Tak Sing Wong (Penn State)
		Gareth McKinley (MIT)
		K. Golovin (UM)
		W. Choi (UT Dallas)
12:45 – 1:45	LUNCH	
1:45 – 2:15	Taylor-Couette flow results	Lex Smits (PU)
2:15 – 2:45	Active Drag Reduction using a Superhydrophobic Leidenfrost Surface	Gareth McKinley (MIT)
2:45 – 3:15	Shear-driven drainage of fluid-infused surfaces: (1) the effect of surfactants and (2) superhydrophobic surfaces	Howard Stone (PU)
3:15 – 3:45	COFFEE BREAK	
3:45 – 4:15	Rheometer testing collaborations	Lex Smits (PU)
		Gareth McKinley (MIT)
		Howard Stone (PU)
4:15 – 4:45	DNS of turbulent flows over canonical SHS posts: Scaling of slip velocity and pressure loads	Ali Mani (Stanford)
4:45 – 5:15	DNS of the Effects of SHS on Skin-Friction Drag	John Kim (UCLA)
5:15 – 5:45	SUMMARY/DISCUSSION	Steve Ceccio (Michigan)

NOTE: All time slots INCLUDE discussion. Please leave time for discussion when planning your talk.



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Wednesday, September 30, 2015

MAE Faculty Lounge, J223

Time	Content	Presenter
8:00 – 8:30	Registration	
8:30 – 8:45	Opening Remarks	Ki-Han Kim (ONR)
8:45 – 9:15	Towards feature-resolved simulations of superhydrophobic surfaces	K. Mahesh (U. Minnesota)
9:15 – 9:45	Direct Numerical Simulation of two superposed viscous fluids in a rough channel: effect of the position of the interface	Stefano Leonardi (UT Dallas)
9:45 – 10:15	Dynamic mode decomposition of two superposed fluids in a channel with cavities on one wall	Valerio Lungo (UT Dallas)
10:15 - 10:45	Computational collaborations	Ali Mani (Stanford) K. Mahesh (U. Minnesota) Stefano Leonardi (UT Dallas)
10:45 – 11:15	COFFEE BREAK	
11:15 – 11:45	Modeling drag reduction in turbulent flows over liquid infused surfaces	Marcus Hultmark (PU)
11:45 – 12:15	Experimental evaluation of SLIPS in turbulent boundary layer flow	Mike Schultz (USNA)
12:15 – 12:45	Experimental Evaluation of Skin-Friction on Super-Hydrophobic Materials in Fully-Developed Channel Flow	M. Perlin (UM)
12:45 – 1:30	LUNCH	
1:30 – 2:00	High resolution measurements of flow and turbulence in the inner part of boundary layers over superhydrophobic surfaces	Hangjian Ling/Joe Katz (JHU)
2:00 - 2:30	Friction drag testing collaborations	Marcus Hultmark (PU) Steve Ceccio (Michigan) Joe Katz (JHU) Michael Schultz (USNA)
2:30 - 3:15	High Reynolds number testing collaborations	Lex Smits (PU) Michael Schultz (USNA) Steve Ceccio (Michigan) Mark (Michigan)
3:15 – 4:00	SUMMARY/DISCUSSION	Howard Stone

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