

Joseph Katz**William F. Ward Sr. Distinguished Professor****Department of Mechanical Engineering, Johns Hopkins University, Baltimore, MD 21218****Telephone: (410) 516-5470; Email: Katz@jhu.edu****Professional Preparation**

Institution	Major	Degree	Year
Tel-Aviv University, Israel	Mechanical Engineering	B.Sc.	1977
California Institute of Technology	Mechanical Engineering	M.S.	1978
California Institute of Technology	Mechanical Engineering	Ph.D.	1982
California Institute of Technology	Mechanical Engineering	Postdoc	1982

Appointments

2005 - present	William F. Ward Sr. Distinguished Professor		Johns Hopkins University
2000-2005	Whiting School Mech. Eng. Prof. (endowed chair),		Johns Hopkins University
1994 - present	Professor,	Mechanical Eng.	Johns Hopkins University,
1990-1993	Associate Professor	Mechanical Eng.	Johns Hopkins University
1987-1990	Assistant Professor	Mechanical Eng.	Johns Hopkins University
1983-1987	Assistant Professor	Civil engineering	Purdue University

Selected Relevant Publications**Most Relevant**

1. Friedman, P.D., Katz, J., (2002), "Mean Rise-Rate of Droplets in Isotropic Turbulence," *Physics of Fluids*, Vol. 14, No. 9, pp. 3059-3073.
2. Gopalan, B., Malkiel, E., Katz, J., (2008), "Experimental Investigation of Turbulent Diffusion of Slightly Buoyant Droplets in Locally Isotropic Turbulence," *Physics of Fluids*, Vol. 20, no. 095102.
3. Gopalan, B., Katz, J., (2010), Turbulent Shearing of Crude Oil Mixed with Dispersants Generates Long Microthreads and Microdroplets, *Physical Review Letters*, Vol. 104, No. 5, No. 054501.
4. Murphy, D.W., Li, C., d'Albignac, V., Morra, D., Katz, J., (2015), "Splash Behavior and Oily Marine Aerosol Production by Raindrops Impacting Oil Slicks," *J. Fluid Mechanics*, Vol. 780, pp. 536-577.
5. Murphy, D.W., Xue, X., Sampath, K., Katz, J., (2016), Crude Oil Jets in Crossflow: Effects of Dispersant Concentration on Plume Behavior, *Journal of Geophysical Research Oceans*, Vol. 121, No. 6, pp. 4264-4281.

Others

6. Talapatra, S., Hong, J., McFarland, M., Nayak, A.R., Zhang, C., Katz, J., Sullivan, J., Twardowski, M., Rines, J., Donaghay, P., (2013) "Characterization of Biophysical Interactions in the Water Column Using *In-Situ* Digital Holography," *Marine Ecology Progress Series*, 473, pp. 29-51.
7. Talapatra, S., Katz, J., (2012), "Coherent structures in the inner part of a rough wall Channel Flow Resolved Using Holographic PIV, *Journal of Fluid Mechanics*, Vol. 711, pp. 161-170.
8. Hong, J., Katz, J., Schultz, M.P., (2011), "Near-Wall Turbulence Statistics and Flow Structures over 3D Roughness in a Turbulent Channel Flow," *Journal of Fluid Mechanics*, Volume 667, pp. 1-37.
9. Katz, J., Sheng, J., (2010), "Applications of Holography in Fluid Mechanics and Particle Dynamics," *Annual Review of Fluid Mechanics*, Vol. 42, pp. 531-555.
10. Liu, X., Katz, J., (2013), "Vortex-Corner Interactions in a Cavity Shear Layer Elucidated by Time Resolved Measurements of the Pressure Field," *Journal of Fluid Mechanics*, Vol. 728, pp. 417-457.

Related Synergistic Activities:

2010 - present Chair - Board of Journal Editors – American Soc. Of Mech. Eng. (ASME)
2000 - 2009 Editor - Journal of Fluids Engineering (ASME)
2012 - 2016 Director - Center for Env. and Appl. Fluid Mechanics at JHU (CEAFM)
2014 - present Vice Chair & Chair – Multiphase Flow Technical Committee (ASME)
2014 - present Mem. of Executive Comm. and Eng. School Lead – Hopkins Heart Initiative

Honors/Awards (selected)

Presidential Young Investigator	NSF	1985
ASME Fellow	ASME	1999
Fluids Engineering Award	ASME	2004
APS Fellow	American Physical society	2009
Gilman Scholar	Johns Hopkins University	2011

Collaborators (last 48 months)

William Blake	JHU and Naval Surface Warfare Center
Michel Boufadel	New Jersey Inst. of Technology
Edward Buskey	University of Texas
Steven Ceccio	University of Michigan
Percy Donaghay	University of Rhode Island (Retired)
Chunill Hah	NASA Glenn
Marcus Hilprt	Columbia University
Gareth McKinley	MIT
Charles Meneveau	JHU
Jan Rines	University of Rhode Island
Michael Schultz	U.S. Naval Academy
Kate Stebe	University of Pennsylvania
James Sullivan	Harbor Branch Research Institute
Patricia Tester	NOAA Nat. Center for Coastal Science
Anish Tuteja	University of Michigan
Michael Twardowski	Harbor Branch, and Florida Atlantic Univ;
Rebecca Waggett	University of Tampa

Graduate and Postdoctoral Advisors and Advisees

Adviser (PhD and postdoc) - Allan Acosta, Caltech (retired);

Students and postdocs (last five years)

Kunlun Bai	Yale University
Tiffany Camp	Pennsylvania State University (Applied Research Lab)
Erin Hackett	Coastal Carolina University
Jiarong Hong	University of Minnesota
Pranav Joshi	Eindhoven University;
Xiaofeng Liu	San Diego State University;
Rinaldo Miorini	General Electric Research Center
David Murphy	University of South Florida
Aditya Nayak	Harbor Branch Ocean. Institute
Jian Sheng	Texas A&M University, Corpus Christie
Siddharth Talapatra	Heat Transfer Research Institute
David Tan	Naval Surface Warfare Center, Carderock
Rene van Hout	Technion
Huixuan Wu	University of Kansas
Cao Zhang	Simerics

Graduated 32 PhD students and mentored 30 postdoctoral fellows; presently advising 11 PhD candidates and three postdoctoral fellows.