FLUID MECHANICS ACROSS SCALES

Whiting School of Engineering → Krieger School of Arts and Sciences

LEADS:

Dr. Dennice Gayme, *Professor, Mechanical Engineering, Carol Croft Linde Faculty Scholar*

Dr. Gretar Tryggvason, *Mechanical Engineering Department Chair, Charles A. Miller, Jr. Distinguished Professor*

RECRUITING:

4 faculty: all levels

ABOUT THE CLUSTER

The **Fluid Mechanics Across Scales** cluster builds upon the longstanding strength in multidisciplinary fluid mechanics research at Johns Hopkins University, where researchers are already at the forefront in efforts to meet pressing global challenges. For example, recent Hopkins fluid mechanics research has led to important contributions to our understanding of the spread of viruses via microscopic droplets, the atmospheric and oceanic flows governing climate patterns, the extraction of energy from wind and waves, as well as many other topics that impact global health, climate, materials, energy, space exploration, and supersonic flight. This initiative seeks to maintain this traditional broad coverage and expand existing collaborations with areas where fluid dynamics plays a substantial role.

Johns Hopkins University recognizes that fluid mechanics is central to understanding a broad range of physical phenomena ranging from biology to climate modeling, and a key component of an even broader set of problems, such as manufacturing and space exploration. Therefore interactions among researchers in this broad range of areas are a hallmark of Hopkins long-standing tradition of fluid mechanics research spanning multiple disciplines and academic units. Fluids faculty are represented in the Krieger School of Arts and Sciences, the Whiting School of Engineering, the Bloomberg School of Public Health and the Applied Physics Laboratory. There are also a number of ongoing collaborations with faculty in the School of Medicine. Frequent cross-disciplinary interactions are facilitated by university-wide funding mechanisms, as well as structural units including, the Center for Environment and Applied Fluid Mechanics (CEAFM), the Ralph O'Conner Sustainable Energy Institute (ROSEI), and the Institute for Data-Intensive Engineering and Sciences (IDIES).

ABOUT THE FANNIE GASTON JOHANSSON FACULTY OF EXCELLENCE PROGRAM AT JOHNS HOPKINS UNIVERSITY

The Fannie Gaston-Johansson Faculty of Excellence Program is part of a $50 million investment that focuses on the recruitment, retention, and advancement of faculty who demonstrate a commitment to diversity and inclusive excellence as part of JHU's Second Roadmap on Diversity, Equity, and Inclusion. The initiative will bring 30 scholars committed to inclusive excellence to Johns Hopkins University, with a concentration on areas where diversity among faculty has lagged and an emphasis on recruiting scholars in science, technology, engineering, and math fields.

FANNIE GASTON-JOHANSSON FACULTY OF EXCELLENCE PROGRAM

FOR MORE INFORMATION USE THE QR CODE TO VISIT
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