Geometry and Analysis of Fluid Flows

With a special tribute to David Ebin on the occasion of his 80th birthday and retirement

Stony Brook University, January 16-20, 2023



Supported by the National Science Foundation, Stony Brook University Department of Mathematics and Institute for Mathematical Sciences, Simons Center for Geometry and Physics, and Vanderbilt University.

Speakers: Yann Brenier (Ecole Polytechnique), Jeff Cheeger (Courant Institute), Peter Constantin (Princeton), Magdalena Czubak (U Colorado Boulder), Tarek Elgindi (Duke U), Susan Friedlander (USC), Darryl Holm (Imperial College London), Mihaela Ignatova (Temple U), Barbara Keyfitz (OSU), Boris Khesin (U Toronto), Leandro Lichtenfelz (Wake Forest U), Huy Nguyen (U Maryland), Tudor Ratiu (UC Santa Cruz), Steve Shkoller (UC Davis), Dennis Sullivan (Stony Brook & CUNY GC), Vladimir Sverak (U Minnesota), Cornelia Vizman (West U of Timisoara).

Financial Support: Limited financial support is available for young researchers and researchers of underrepresented groups. The deadline for applying is 12/2/2022.

More information: https://my.vanderbilt.edu/geoanalysisff/

Aim: The workshop will feature a mathematically diverse group of speakers whose expertise spans multiple relevant areas. Topics to be discussed at the workshop include free boundary problems in fluid dynamics, the geometry of infinite-dimensional groups, singular limits in fluid flows, well-posedness and regularity of fluid equations, and differential geometric methods in mathematics and physics. The workshop will happen in conjunction with a celebration of David Ebin's contributions to these topics on the occasion of his 80th birthday and retirement.

Organizers: Marcelo Disconzi (Vanderbilt University), Theodore Drivas (Stony Brook University), Gerard Misiolek (University of Notre Dame), Stephen Preston (Brooklyn College & CUNY Graduate Center)