

Stanford



Suhas Jain Suresh

Ph.D. Student in Mechanical Engineering, admitted Spring 2017

Bio

STANFORD ADVISORS

- Parviz Moin, Doctoral Dissertation Advisor (AC)

PERSONAL INTERESTS

Multiphase flows, Atomization and sprays.

Interface-capturing algorithms, Two-fluid modeling and Multiscale methods,

Computational Fluid Dynamics,

Parallel Programming and Solver Development,

Turbulent Flows.

LINKS

- Personal Site: <http://web.stanford.edu/~sjsuresh/>

Research & Scholarship

LAB AFFILIATIONS

- Parviz Moin (4/30/2017)
- Ali Mani (9/30/2016)

Professional

WORK EXPERIENCE

- Teaching Assistant - Stanford University (October 1, 2016 - 3/31/2017)
- Research Assistant - Indian Institute of Science (October 15, 2015 - August 30, 2016)
- Guest Researcher - Helmholtz-Zentrum Dresden-Rossendorf (June 15, 2014 - June 14, 2015)
- Summer intern - University of Paderborn

Publications

PUBLICATIONS

- **A conservative diffuse-interface method for compressible two-phase flows** *Journal of Computational Physics*
Jain, S. S., Mani, A., Moin, P.
2020; 418

- **Droplets in homogeneous shear turbulence** *JOURNAL OF FLUID MECHANICS*
Rosti, M. E., Ge, Z., Jain, S. S., Dodd, M. S., Brandt, L.
2019; 876: 962–84
- **A conservative and non-dissipative Eulerian formulation for the simulation of soft solids in fluids** *Journal of Computational Physics*
Jain, S. S., Kamrin, K., Mani, A.
2019; 117
- **Secondary breakup of drops at moderate Weber numbers: Effect of Density ratio and Reynolds number** *International Journal of Multiphase Flow*
Jain, S. S., Tyagi, N., Prakash, R. S., Ravikrishna, R. V., Tomar, G.
2019; 117 (August 2019): 25-41
- **DETAILED NUMERICAL SIMULATIONS OF ATOMIZATION OF A LIQUID JET IN A SWIRLING GAS CROSSFLOW** *ATOMIZATION AND SPRAYS*
Prakash, S. R., Jain, S. S., Lovett, J. A., Raghunandan, B. N., Ravikrishna, R., Tomar, G.
2019; 29 (7): 577–603
- **Birth of microbubbles in turbulent breaking waves** *Physical Review Fluids*
Chan, W. R., Mirjalili, S., Jain, S. S., Urzay, J., Mani, A., Moin, P.
2019; 4
- **Flow-induced breakup of drops and bubbles** *arXiv:[physics.flu-dyn]*
Jain, S. S.
2017

PRESENTATIONS

- Effect of Density Ratio on the Secondary Breakup of Spherical Drops in a Gas Flow - 18th Annual Conference of Liquid Atomization & Spray Systems - Asia (11/21/2016 - 11/24/2016)
- Computational study of liquid jet breakup in swirling cross flow - 18th Annual Conference of Liquid Atomization & Spray Systems - Asia (12/21/2016 - 12/24/2016)
- Improved deferred correction method for the implementation of higher order schemes - 5th International Conference and 41st National Conference on Fluid Mechanics and Fluid Power (12/15/2014 - 12/19/2014)