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| Jason Larkin  jmlarkin@andrew.cmu.edu | | | 412-398-8813  4763 Sherwood Dr, Pittsburgh, PA 15236 | |
| Education | | | | |
|  | Carnegie Mellon University, Pittsburgh, PA **Ph.D., Mechanical Engineering** GPA: 3.9  **2009-present**  **-Research:** Thermal Modeling of Disordered Materials  **-Coursework:** Molecular Simulation, Electron Structure Simulation, Solid State Physics, Quantum Chemistry, Numerical Methods, Nanoscale Transport Phenomena University of Pittsburgh, Pittsburgh, PA | | | |
| M.S. Mechanical Engineering GPA: 3.7 | | | 2007-2009 |
| **-Thesis:** Statistics of Particle Concentrations in Free-Surface Turbulence  **-Coursework:** Quantum Mechanics, Statistical Mechanics, Advanced Fluid Mechanics, Turbulence, C C Chaos and Nonlinear Phenomena, Linear and Nonlinear Elasticity. | | | |
| **B.S. Mechanical Engineering** GPA: 3.2  **2003-2007** | | | |
| -Research: FEA modeling of novel flow chamber to study initiation and development of aneurysms. | | | |
| Teaching Experience | | | | |
|  | | *Carnegie Mellon University* **Teaching Assistant –** 24-322: Heat Transfer  **2010** Topics in conduction, convection, radiation and heat exchangers. Supervised recitation sessions and substituted for several lectures.  *University of Pittsburgh* Teaching Assistant **–** Advanced Fluid Mechanics **2008** Topics in Fluid Mechanics including viscous flow, boundary layer theory, and scale similarity. Lecturer – Physics **2007-2009** Administered lectures to undergraduate students, graduate students, and faculty on topics ranging from Mathematics, Turbulence, Bio-Physics, Statistical Physics, and general Nonlinear Phenomena. | | |
| Publications and papers | | | | |
|  | | * J. Larkin, A.J.H. McGaughey, “Predicting Phonon Properties of Defected Systems using Spectral Energy Density”, in preparation. * S. Stefanus, J. Larkin, W. Goldburg, “A Search for Conformal Invariance in Compressible Two Dimensional Turbulence”, in preparation. * J. Larkin, W. Goldburg, M.M. Bandi, “Time-Evolution of a fractal distribution: Particle concentrations in free-surface turbulence”, *Physica D* **239** 14 (2010) 1211-1378. * Larkin, W. Goldburg, “Decorrelating a Compressible Turbulent Flow: an Experiment”, *Phys. Rev. E* **82**, 016301 (2010). * J. Larkin, M.M. Bandi, A. Pumir, W. Goldburg , “Power-law distributions of particle concentration in free-surface flows”, *Phys. Rev. E* **80**, 066301 (2009). | | |
| selected Presentations (7 total) | | | | |
|  | | * “Predicting Thermal Conductivity of Defected Systems using the Spectral Energy Density”, J. Larkin 2011 Bennett Graduate Student Symposium Presentation. Award for Best Presentation. * “Decorrelating a Compressible Turbulent Flow: An Experiment”, J. Larkin, W. Goldburg (speaker). 2010 American Physical Society March Meeting Portland, OR. * “Statistics of Preferential Particle Concentration in Free-Surface Turbulence”, J. Larkin (speaker), M.M. Bandi, W. Goldburg. 2009 American Physical Society March Meeting Pittsburgh, PA. * “The Generalized Fractal Dimensions of a 2-D Compressible Turbulence”, J. Larkin (speaker), M.M. Bandi, W. Goldburg. 2008 American Physical Society March Meeting New Orleans, LA. | | |
| Memberships | | | | |
|  | | * American Physical Society, American Society of Mechanical Engineers, Materials Research Society, Society for Industrial and Applied Mathematics | | |