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Ph.D., Mechanical Engineering, Purdue University (2016)

Research Summary:

Research at Argonne is focused on the study of phonon dynamics during hot electron relaxation processes. Other research interests include micro/nano scale energy transfer processes and thermal transport across heterogeneous material interfaces.

Selected Recent Publications:

1. Sridhar Sadasivam, Stephen L. Hodson, Matthew R. Maschmann, Timothy S. Fisher, Combined Microstructure and Heat Transfer Modeling of Carbon Nanotube Thermal Interface Materials, Journal of Heat Transfer, vol. 138, p. 042402, 2016
2. Sridhar Sadasivam, Umesh V. Waghmare, Timothy S. Fisher, Electron-phonon coupling and thermal conductance at a metal-semiconductor interface: First-principles analysis, Journal of Applied Physics, vol. 117, p. 134502, 2015
3. Sridhar Sadasivam, Yuhang Che, Zhen Huang, Liang Chen, Satish Kumar, Timothy S. Fisher, The atomistic Green's function method for interfacial phonon transport, Annual Review of Heat Transfer, vol. 17, pp. 89-145, 2014
4. Ishan Srivastava, Sridhar Sadasivam, Kyle C. Smithy, Timothy S. Fisher, Combined Microstructure and Heat Conduction Modeling of Heterogeneous Interfaces and Materials, Journal of Heat Transfer, vol. 135, p. 061603, 2013
5. Arunn Narasimhan, Sridhar Sadasivam, Non-Fourier bio heat transfer modeling of thermal damage during retinal laser irradiation, International Journal of Heat and Mass Transfer, vol. 60, pp. 591-597, 2013