

Academic CV

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Education

Phd, Mechanical Engineering, Technische Universitaet, Munich, Germany, 2008
M.E., Aerospace Engineering, Indian Institute of Science, Bangalore, India, 2002
B. E., Mechanical Engineering, Bengal Engineering College, Sibpur, India, 1998

Post Phd employment

Assistant Professor, Aerospace Engineering, IIT, Kharagpur, since July 2013
Postdoctoral research associate, Technische Universitaet, Munich, Germany, 2008–2013

Journal Papers

J. Mathew, S. Ghosh, R. Friedrich 2016, Changes to invariants of the velocity gradient tensor at the turbulent-nonturbulent interface of compressible mixing layers, *International J. Heat and Fluid flow* (accepted)

Somnath Ghosh and Rainer Friedrich Effects of radiative heat transfer on the turbulence structure in inert and reacting mixing layers by Somnath Ghosh and Rainer Friedrich, *Physics of Fluids*, vol 27, issue 5

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S. Ghosh, J. Sesterhenn, and R. Friedrich, 2008, Large-eddy simulation of supersonic turbulent flow in axisymmetric nozzles and diffusers, *International Journal of Heat and Fluid flow*, 28, pp 579–590

Refereed Conference papers

S. Ghosh, R. Friedrich, Analysis of pressure-strain correlations in a supersonic pipe, nozzle and diffuser using Green's functions, *Turbulence and shear flow phenomena 9*, Melbourne, Australia, 2015

S. Ghosh, R. Friedrich, C. Stemmer, B. Cuenot and M. El Hafi, Effects of radiative heat transfer on the turbulence structure in inert and reacting mixing layers, *Turbulence and shear flow phenomena 8*, Poitiers, France, 2013.

S. Ghosh, R., Friedrich, C. Stemmer, LES of turbulence-radiation interaction in plane reacting and inert mixing layers. *Direct and Large eddy simulation 9*, Dresden, Germany, 2013

S. Ghosh, R. Friedrich, B. Cuenot and M. El Hafi, 2011, Interaction between turbulence and radiative heat transfer in supersonic channel flow, *Turbulence and Shear Flow Phenomena 7*, Ottawa, Canada

J. Mathew and S. Ghosh, 2011, Effect of compressibility on the velocity gradient tensor at free shear flow boundaries, *Turbulence and Shear Flow Phenomena 7*, Ottawa, Canada

S. Ghosh and R. Friedrich, 2010, Effects of deceleration and mean dilatation on turbulence production and redistribution in an axisymmetric supersonic diffuser, *ERCOFTAC symposium on Engineering Turbulence modelling and measurement*, Marseilles, France, pp 933–938.

S. Ghosh, R. Friedrich and H. Foysi, 2009, Compressible turbulent channel and pipe flow: similarities and differences, *Turbulence and Shear Flow Phenomena 6*, Seoul, Korea, pp 347–352

S. Ghosh and R. Friedrich, 2009, Direct numerical simulation of turbulent flow in an axisymmetric supersonic diffuser, *Turbulence and Shear Flow Phenomena 6*, Seoul, Korea, pp 1357–1362

S. Ghosh, J. Sesterhenn and R. Friedrich, 2007, Supersonic turbulent flow in axisymmetric nozzles and diffusers, *Turbulence and Shear Flow Phenomena 5*, Munich, Germany, pp 227–232

S. Ghosh, J. Sesterhenn and R. Friedrich, 2006, DNS and LES of compressible turbulent pipe flow with isothermal wall, *Direct and Large-eddy simulation VI*, Poitiers, France, Springer, pp 721–728

Book Chapters

S. Ghosh and R. Friedrich 2016 Green's function analysis of pressure-strain correlations in a supersonic pipe, nozzle and diffuser, *Advances in computation, modelling and control of transitional and turbulent flows*, World Scientific

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