

## LIST OF PUBLICATIONS

**Faculty: Dr Satya Pramod Jammy**

**Department of Mechanical Engineering**

### JOURNAL PUBLICATIONS

Conjugate heat-transfer analysis for hypersonic flow over finite thickness flat plate. G. Oppattaiyamath, N. Reddy, **S. P. Jammy**, and V. Kulkarni. *Journal of Aerospace Engineering*, 26(4), 2011

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Boundary conditions and vortex wandering. **S. P. Jammy**, Nick Hills, and David M. Birch. *Journal of Fluid Mechanics*. 747:350–368, May 2014.

Block-structured compressible Navier–Stokes solution using the ops high-level abstraction. **S. P. Jammy**, G. R. Mudalige, I. Z. Reguly, N. D. Sandham, and M. Giles. *International Journal of Computational Fluid Dynamics*, 30(6):450–454, 2016.

Open SBLI: A framework for the automated derivation and parallel execution of finite difference solvers on a range of computer architectures. C. T. Jacobs, **S. P. Jammy**, and N. D. Sandham. *Journal of Computational Science*, 18:12–23, 2017

Performance evaluation of explicit finite difference algorithms with varying amounts of computational and memory intensity. C. T. Jacobs, **S. P. Jammy**, and N. D. Sandham. *Journal of Computational Science*, 206 (accepted).

An error indicator for finite difference methods using spectral techniques with application to aerofoil simulation. C. T. Jacobs, Z. Markus, N. De Tullio, **S. P. Jammy**, D. J. Lusher, and N. D. Sandham. *Computers and Fluids*, 168:67 – 72, 2018

Shock-wave/boundary-layer interactions in the automatic code generation framework OpenSBLI. David J. Lusher, **Satya P. Jammy**, Neil D. Sandham, 173:17-21, 2018

Large-scale performance of a DSL-based multi-block structured-mesh application for Direct Numerical Simulation. G.R.Mudalige, I.Z.Reguly, **S. P. Jammy**, C.T.Jacobs, M.B.Giles, N.D.Sandham. *Journal of Parallel and Distributed Computing*. 131: 130-146, 2019.

Two-dimensional unsteadiness map of oblique shock wave/boundary layer interaction with sidewalls. Rabey,P.K., **Jammy, S. P**, Bruce, P.J.K., Sandham, N.D. *Journal of Fluid Mechanics*. 2019.[I.F:3.627].10.1017/jfm.2019.404

Aerothermodynamic Assessment of Spiked Configuration For Drag Reduction at Hypersonic Speeds. Kumar, Shailendra, Vinayak Kulkarni, and **S. P. Jammy**. *Journal of Aerospace Engineering*. 2020.[I.F:1.904].10.1061/(ASCE)AS.1943-5525.0001180

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OpenSBLI-Automatic code generation for heterogeneous computer architectures applied to CFD. David J. Lusher, **Satya P. Jammy**, Neil D. Sandham. *Computer physics communication*. 2021.[I.F:4.71].10.1016/j.cpc.2021.108063

### **CONFERENCE PUBLICATIONS**

Nagarjuna Reddy. Y, **Satya Pramod. J**, O, and Vinayak. N. Kulkarni. Numerical simulation of viscous hypersonic flow over porous flat plate using FVM. In 4th International conference on Fluid mechanics and Fluid power at Indian Institute of Technology, Madras, December 2010

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**Satya Pramod Jammy** and Vinayak Kulkarni. Injection Studies for Scramjet engine. In 1st National conference on Innovations in Mechanical Engineering, April 2012

**S. P. Jammy**, N Hills, and D. M Birch. Effect of turbulent vortex ‘wandering’ in direct numerical simulations. In International Workshop on Physical Modeling of Flow and Dispersion Phenomena, PHYSMOD, September 2013.

**S. P. Jammy** and N. D Sandham. Unsteadiness of oblique shock-wave/boundary-layer interaction with end walls. In Proceedings of 10th International conference on Turbulence and Shear Flow Phenomena (TSFP10), July 2017.

Chutia, A. Pathak, P. Phukan, **S. P. Jammy**, and V. Kulkarni. Hypersonic flow investigations on various computing architectures. In 5th National Symposium on Shock Waves , February, 26-28 2018

J Lusher, **S. P. Jammy**, and N. D Sandham. Transitional shock-wave/boundary-layer interactions with side-wall effects. In 7<sup>th</sup> European Conference on Computational Fluid Dynamics (ECFD 7), Glasgow, UK, June 2018

**S. P. Jammy**, C. T Jacobs, D. J Lusher, and N. D Sandham. Energy consumption of algorithms for solving the compressible Navier-Stokes equations on CPUs, GPUs and KNLs. In 7th European Conference on Computational Fluid Dynamics (ECFD 7), Glasgow, UK, June 2018.

J Lusher, **S. P. Jammy**, and N. D Sandham. Transitional shock-wave/boundary-layer interactions in the automatic source-code generation framework OpenSBLI. In Tenth International Conference on Computational Fluid Dynamics (ICCFD10), Barcelona, Spain, July 2018

Jubajyoti Chutia, **S. P. Jammy**, Vinayak Kulkarni and Niranjana Sahoo. Viscous compressible flow solver on various architectures. In 7<sup>th</sup> International conference on Fluid mechanics and Fluid power at Indian Institute of Technology, Bombay, December 2018