

Publications

Journal Publications

1. Das D., Arakeri J. H., “Transition of inflectional velocity profiles with reverse flow”, *Journal of Fluid Mechanics*, **374** (1998) 251—283.
2. Dey J., Das D., “A note on the linear instability of the Blasius flow”, *Acta Mechanica* **128** (1998) 253—258.
3. Das D., Arakeri J. H., Srinivasan J., “Bifurcation in a buoyant horizontal laminar jet”, *Journal of Fluid Mechanics*, **412** (2000) 61-73.
4. Das D., Arakeri J. H., “Unsteady Laminar Duct Flow with a Given Volume Flow Rate Variation”, *Journal of Applied Mechanics*, **67** (2001) 274—281.
5. Arakeri J. H., Das D., Krothapalli A., and Lourenco L., “Vortex ring formation at the open end of a shock tube: A Particle Image Velocimetry study”, *Physics of Fluids*, **16** Issue 4 (2004) 1008-1019.
6. Murugan T., Das D., “On On Evolution and Acoustics Characteristics of Compressible Vortex Ring”, *Intl. Jl of Aeroacoustics*, **7** (2008) 199-222.
7. Murugan T., Das D., Jain M., “On the Collision of Compressible Vortex Ring with Wall”, *Journal of Visualization*, **11** No.4 (Nov. 2008).
8. Murugan T., Das D., “On the Evolution of Counter Rotating Vortex Ring Formed Ahead of a Compressible Vortex Ring”, *Journal of Visualization*, **12** No.1 (Jan. 2009).
9. Sengupta T.K., Das D., Mohanamuraly P., Suman V.K. and Biswas A., “Modeling Free-Stream Turbulence based on Wind Tunnel and Flight Data for Instability Studies”, *Int. J. Emerging Multidisciplinary Fluid Sciences*, Vol. **1**, Issue:3, Pages: 181-199 (2009).
10. Murugan T., Das D., “Characteristics of counter-rotating vortex rings formed ahead of a compressible vortex ring”, *Experiments in Fluids*, 2010 online.

Papers Published in Conference Proceedings

1. S.K. Ghosh, C.L. Dora, G.K. Bunkar and D. Das, “Understanding Flapping Flight through PIV Measurements on a Butterfly Simulating Model” *6th International Conference on Intelligent Unmanned Systems, Bali, Indonesia, November 2-3, 2010*.
2. S.K. Ghosh, C.L. Dora, G.K. Bunkar and D. Das, “Unsteady Wake characteristics of a flapping wing through 3D TR-PIV measurement”, *6th International Conference on Intelligent Unmanned Systems, Bali, Indonesia, November 2-3, 2010*.
3. C.L. Dora, S. K. Ghosh, D. Saravanan, T. Murugan and D. Das. “Flow Field Analysis of Compressible Vortex ring at High Mach Numbers Using Particle Image Velocimetry.” *8TH INTERNATIONAL SYMPOSIUM ON PARTICLE*

- IMAGE VELOCIMETRY - PIV09 Melbourne, Victoria, Australia, August 25-28, 2009.**
4. S. K. Ghosh, C.L. Dora and D. Das, "Flow Field of Butterfly Flight: A PIV Study". **8TH INTERNATIONAL SYMPOSIUM ON PARTICLE IMAGE VELOCIMETRY - PIV09 Melbourne, Victoria, Australia, August 25-28, 2009.**
 5. Lakshman K, Murugan, T., Sarvanan, S, Ghosh K. S., Sankaran S, Satyanarayana TNV and Das, D., "Initial Acoustic load distribution on launch vehicle model during flow development." **3rd European conference for Aerospace Science, 6-9, July 2009, Paris France.**
 6. Murugan, T, Lakshman K, Kawale K. N., Mayanak S. and Das, D., "On the acoustic emission of vortex ring-cone/cylinder interaction. Initial Acoustic load distribution on launch vehicle model during flow development." **3rd European conference for Aerospace Science, 6-9, July 2009, Paris France.**
 7. K. Ashok, A Nayak, S Saurabh, A K Singh, Debopam Das, "Stability of Unsteady Flow with Inflectional Velocity Profiles in a Circular Concentric Annulus." **IISc Centenary - International Conference on advances in Mechanical Engineering IC-ICAME 2008, Bangalore.**
 8. Murugan, T., and Das, D., Manish J. "On the Collision of Supersonic Vortex Ring with Wall" **IISc Centenary - International Conference on advances in Mechanical Engineering IC-ICAME 2008 , Bangalore.**
 9. Murugan, T., and Das, D., "Experimental Investigation of the Acoustic Characteristics of Shock-Vortex Ring Interaction Process," **13th AIAA/CEAS Aeroacoustics Conference, 21-23, May 2007, Rome, Italy.**
 10. Murugan, T., and Das, D., "On the Wall Interaction of Compressible Vortex Rings and Associated Noise," **37th AIAA Fluid Dynamic Conference and Exhibit, 25-28, June 2007, Hyatt Regency, Miami, Florida, U. S. A. AIAA 2007-3872.**
 11. Murugan, T., and Das, D., "Experimental Investigation of Acoustic Characteristics of compressible vortex rings," **2nd European conference for Aerospace science, 1-6, July 2007, Brussels, Belgium.**
 12. Murugan, T., and Das, D., "Structure and Acoustic Characteristics of Supersonic Vortex Rings," **FLUCOME 2007 (9th International Symposium on Fluid Control, Measurement and Visualization), 16-19, September 2007, Tallahassee, Florida, U. S. A**
 13. Murugan, T., and Das, D., "Simulation of Flow in a Compressible Vortex Ring Generator Using Smoothed Particle Hydrodynamics Method," **2nd International Congress on Computational Mechanics and Simulation, 8-10, December, 2006, IIT Guwahati, India.**
 14. Murugan, T., and Das, D., "Propagation and Wall Interaction of Compressible Vortex Ring: Qualitative Study," **The 9th Asian Symposium on Visualization, 4-9, June 2007, Hong Kong, China.**
 15. Debopam Das, Deepak K Choudhary, Gopal K. Choudhary, "Interaction of a pair of bubble" in **Hagen-Poiseuille flow 6th European Fluid Mechanics Conference, Stockholm Sweden June 26-30, 2006**
 16. Avinash Nayak and Debopam Das, "Three-dimensional Temporal Instability of Unsteady Pipe Flow", **International Conference: BAIL 2006 Boundary and Interior Layers - Computational & Asymptotic Methods – 24-28 July 2006 Göttingen, Germany**

17. Debopam Das, J. H. Arakeri, A. Krothapalli & Luis Leurenco. "Acoustic characteristics of compressible vortex ring." *Symposium on Recent Advances in Aeroacoustics and Active Flow-Combustion Control*, in. *Honor of Prof. John E. Ffowcs Williams, Goa, India, January, 2005*
 18. K Ghosh, D Das, B Chandra, "Wind tunnel and open air tests of Vinh-Houmaire vertical axis wind turbine." *Wind power 2005 conference of AWEA Denver May 14-18 2005*
 19. Debopam Das and Vivek Kumar, "Experimental Investigation of the Trajectory of Compressible Vortex Rings" *2004 AIAA 2005-2953*
 20. Debopam Das, J. H. Arakeri, "Transition and Separation in Unsteady Boundary Layers", *Symposium on Advances in Fluid Mechanics, Bangalore India 24-25 July, 2003*
 21. D.Das, J.Soria & T.T. Lim, "Accelerated Flow over a Circular Cylinder", *the 10th International Symposium on Flow Visualization 26-29th August 2002, Kyoto, Japan.*
 22. J.Soria, D. Das & T.T. Lim, "MCCDPIV Measurements of Accelerated Flow Past A Cylinder", *Third Australian Conference on Laser Diagnostics in Fluid Mechanics and Combustion December 23 2002 The University of Queensland, Brisbane, Australia.*
 23. D. Das, J. H. Arakeri, R. Elavarasan and A. Krothapalli, "Flow Field and Noise Characteristics of a Compressible Vortex Ring." *7th AIAA/CEAS Aeroacoustics Conference, 28-30th May, 2001, Maastricht, The Netherlands. Paper # 2214.*
 24. Schmid, G. F., Strykowski P. J., Madruga, M., Das, D. & Krothapalli, A., "Jet Attachment Behavior using Counter flow Thrust Vectoring", *Proceedings of the ONR meeting. 2000*
 25. Debopam, Das, Sreenivas, K. R., Arakeri, J. H. and Srinivasan, J., "On the Bifurcation Of Laminar Buoyant Jets Discharged Horizontally", *Experimental Heat Transfer, Fluid Mechanics and Thermodynamics 1993, M. D. Kelleher it et al. (Editors), Elsevier Science Publishers B.V.*
 26. Debopam Das, Arakeri, J. H. and Vashist, T. K. "Linear Stability Analysis of Wall Bounded Velocity Profiles with Inflection Point ", *The Sixth Asian Congress of Fluid Mechanics, Singapore 22-26 May 1995, Y. T. Chew and C. P. Tso (Editors).*
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Papers Presented in Conference

1. Murugan, T., and Das, D., Manish J., "Characteristics of Shock Tube Generated High Mach Number Vortex Rings." *Fluids Day 2008 JNCASR Bangalore*
2. A. Krothapalli, D. Das, "High Temperature Supersonic Jet Facility", Presented at *39th AIAA Aerospace Science Meeting and Exhibit, 2001 AIAA-2001-0985*
3. Debopam Das, Jaywant H Arakeri, Anjaneyulu Krothapalli, "Experimental Study of Shock Generated Compressible Vortex Ring", *APS Meeting November 19 - 21, 2000 Washington, DC.*

4. Madruga, Maria S.; Das, Debopam; Strykowski, Paul J., “Experimental Study On Counter Flow Thrust Vector Control”, ***APS Meeting November 19 - 21, 2000 Washington, DC***
 5. Soria, Julio; Lim, T. T.; Parker, Kamalluddien; New, T. H.; Das, Debopam, “The structure of accelerated flow over an airfoil at an angle of attack”, ***APS Meeting November 18 - 20, 2001 San Diego.***
 6. Debopam Das, Jaywant H. Arakeri, “Vortex Formation during Unsteady Boundary-Layer Separation”, ***APS Meeting Nov 1998.***
 7. T. K. Sengupta D. Das Presented in DREAM 07 in GE India Bangalore
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