

Publications:

Journals/Proceedings:

1. B.V. Rathish Kumar, P. S. Rao & P. Sinha, "Streamline Upwind Petrov-Galerkin Finite element analysis of thermal effects on load carrying capacity in slider bearings", Numerical Heat Transfer: Part A (Applications), Vol: 38, pp: 305 - 328, 2000.
2. B.V. Rathish Kumar, P. S.Rao & P. Sinha, "A Numerical study of performance of a slider bearing with heat conduction to the pad", Finite Elements in Analysis and Design, Vol: 37, pp: 533- 547, 2001.
3. P. S. Rao, B.V. Rathish Kumar & P. Sinha, "A Thermo hydrodynamic analysis of a slider bearing with heat conduction both to the pad and slider", STLE Annual Meeting Proceedings, pp. 95 - 102, May 2002.
4. P. S.Rao, "Numerical Simulation of the effect of fluid inertia on slider bearing lubrication with heat conduction to the pad", South East Asian Journal of Math. & Math. Sc, Vol: 2, No: 2 (2004), pp.57-62.
5. P. S. Rao, "Numerical study of heat transfer effects on the performance of a slider bearing", South East Asian Journal of Math. & Math. Sc, Vol: 9, No: 2 (2007), pp.107-120.
6. P. S. Rao, "Wavelet based weight functions in the finite element study of thermal lubrication", Applied Mathematics & Computation, Vol: 21, pp: 31 - 42, 2008.
7. P. S. Rao, "Effect of fluid inertia in a tilted pad slider bearing lubrication with heat conduction to the pad", Journal of Applied Mechanics, Vol: 38, pp: 321 - 333, 2009).
8. P.S.Rao, 8. P.S.Rao, "Finite element analysis of a thermal boosting on load carrying mechanism", "International Conference on Thermal Energy and Environment", 24 -26, March 2011, Kalasalingam University, Tamilnadu., Proceedings of ASME, pp: 37 - 48, 2011.
9. P.S.Rao," A Thermohydrodynamic Analysis of a tilted pad slider bearing with heat conduction to the pad and slider", "The 2011 World Congress in Computer Science, Computer Engineering and Applied Computing (WORLDCOMP'11) Proceedings, pp: 129 - 140, July 2011.

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2. P.S.Rao, "Parallel Slider performance in high speed lubrication", National Conference on Computational methods in fluids, Regional Engg. College, Bhopal---May 20-22, 1997.
3. P.S.Rao, "SUPGFEM analysis of thermal effects on load carrying capacity in tilted pad slider bearings", National Conference on Mathematical and Computational models.. PSG college of Technology, Coimbatore -Dec 27-28, 2002.
4. P.S.Rao, "Effect of fluid inertia on tilted pad slider bearings with heat conduction to the stationary pad", National Conference on Fluid Flow and Control.... UGC DRS Center, Bharathiar University, Coimbatore --- March 28-29, 2003.
5. P.S.Rao, "Influence of heat conduction on load carrying mechanism in tilted pad slider bearings",. 14th Jang-jeon International Mathematical Conference, Department of Mathemtics, University of Mysore.... Dec 25-27, 2003.
6. P.S.Rao, "Influence of tilt parameter on load carrying mechanism and drag forces in tilted pad slider bearings", National Conference on Advances in Fluid Mechanics, Department of Mathematics, Gulbarga University, Gulbarga ... Feb 22- 24, 2004.
7. P.S.Rao, " Influence of fluid Inertia on the slider bearing lubrication with flux boundary conditions", International Conference on Mathematical Fluid Dynamics, Department of Mathematics, University of Hyderabad during 2-7, Dec 2004..
8. P.S.Rao, " Influence of thermal flux boundary conditions on pressure generation mechanism in slider bearing Lubrication", Conference on Computational Methods in Continuum Mechanics (CMCM 2006), Department of Mathematics, Anna University, Chennai, Jan 11 - 12, 2006.
9. P.S.Rao, "Performanance of a slider bearing at high Reybolds number in thermohydrodynamic flow regime", International Conference on Frontiers in Fluid Mechanics (ICFFM -06),

SAP, Centre for advanced studies in Fluid Mechanics, Department of Mathematics, Bangalore University, Bangalore October 26-28, 2006.

10. P.S.Rao, "Wavelet based Finite Element Method for Thermal Lubrication", National Conference on Recent Developments in Mathematics & Applications, Department of Mathematics, Andhra University, Visakhapatnam, 26 - 28, November, 2007.
11. P.S.Rao, "Wavelet based finite elements in heat transfer", ISTAM, Department of Mechanical Engineering, O.U. College of Engineering, Hyderabad, Dec 27 - 30, 2008.
12. P.S.Rao, "A Numerical study of the effect of surface roughness on the pressure generation mechanism in thermally lubricated porous inclined slider bearing", Page: 31 - 39, presented and published in the proceedings of the "International Conference on Frontiers of Interface between Statistics & Sciences", University of Hyderabad, Hyderabad (A.P), INDIA, Dec 20, 2009- Jan 02, 2010.
13. P.S.Rao, "An improved algorithm for solving a general blood tissue transport and metabolism model", has been presented in the "5th National Conference on Applicable Mathematics in Wave Mechanics and Vibrations", Department of Mathematics, Kakatiya University, Warangal, March 13 - 15, 2010.
14. P.S.Rao, "Efficiency of direct parallel algorithm applied to thermo hydrodynamic lubrication", "International Congress of Mathematicians (ICM - 2010), organised Hyderabad Central University, Hyderabad during 19- 27 August, 2010.
15. P.S.Rao, "Finite element analysis of a thermal boosting on load carrying mechanism", "International Conference on Thermal Energy and Environment", 24 -26, March 2011, Kalasalingam University, Tamilnadu.