

## List of Research Papers

### (Published, Presented, and Communicated)

- [1\*] **Error Estimates for Wavelet-Galerkin Solution of Boundary Value Problem**, Bulletin of Pure and Applied Sciences, Vol. 23 E, No.1, 2004.
- [2\*] **Numerical Simulation of Cooling of Coke in Can**, Applied Science Periodical, Vol. VIII, No. 2, May 2006 (To appear).
- [3\*] **Mathematical Models for Pressure Distribution in Slider Bearing Lubricated with Viscous Fluid**, 69<sup>th</sup> Annual Conference of Indian Mathematical Society, 26<sup>th</sup> – 29<sup>th</sup> December 2003, Lucknow, Uttar Pradesh, India. (Presented)
- [4\*] **Numerical Simulation of Burger's Equation using Daubechies Wavelets**, International Conference of Industrial and Applied Mathematics, 4<sup>th</sup> – 6<sup>th</sup> December 2004, organized by Jamia Milia Islamia & Society of Industrial and Applied Mathematics, New Delhi, India. (Presented)
- [5\*] **Weight Functions and Finite Pointset Method for One Dimensional Problem**, International Conference on Recent Trends on Non-Linear Analysis and its Applications, 10<sup>th</sup> – 13<sup>th</sup> December 2004, organized by IIT Bombay, Mumbai, India and OCIAM, U. K. (Presented)
- [6\*] **Preconditioners and the Finite Pointset Discretizations of Elliptic Problems Arise in Fluid Models**, 70<sup>th</sup> Annual Conference of Indian Mathematical Society, 26<sup>th</sup> – 29<sup>th</sup> December 2004, Jodhpur, Rajasthan, India (**IMS prize for the Best Research Paper** in the field of Fluid Dynamics). (Presented)
- [7\*] **Finite Pointset Method and Neighboring Algorithms for the Elliptic Problems Modeled from Flow Problems**, 19<sup>th</sup> Gujarat Science Congress, 19<sup>th</sup> February 2005, Sardar Patel University, Vallabh Vidyanagar, Gujarat, India. (Presented)
- [8\*] **Analysis of Fluid Flow through Finite Pointset Method**, Society for Applied and Numerical Methods (SANUM 2005), Department of Applied Mathematics, University of Stellenbosch, South Africa during 30<sup>th</sup> March – 1<sup>st</sup> April 2005. (To be presented)
- [9\*] **Molecular Dynamics of Granular Particles**, Annual conference on Modeling, Simulation and Design of Dielectrics, Homerton College, Cambridge, London, United Kingdom, during 6<sup>th</sup> – 8<sup>th</sup> April 2005. (To be presented)
- [10\*] **A Wavelet Preconditioner for Two-Dimensional Elliptic Problem**, at Annual Conference of 57<sup>th</sup> British Mathematics Colloquium and 47<sup>th</sup> British Applied Mathematics Colloquium, during 4<sup>th</sup> – 7<sup>th</sup> April 2005, Liverpool, United Kingdom. (To be presented)
- [11\*] **Wavelet-based Green's Function Approach to Helmholtz and Modified Helmholtz Problem**, Journal of Israel Mathematical Society (Communicated).
- [12\*] **Wavelet Transform Solution of Elliptic Partial Differential Equations**, Turkish Journal of Mathematics (Communicated).
- [13\*] **Wavelet-Galerkin Solution of Hyperbolic Problems with Preconditioning**, Bulletin of Calcutta Mathematical Society (Communicated).
- [14\*] **Wavelet-Galerkin Solution of Parabolic Problems with Preconditioning**, Indian Journal of Pure and Applied Mathematics (Communicated).
- [15\*] **Wavelet Transform Solution of Dirichlet Boundary Value Problem**, Nepal Mathematical Sciences (Communicated).



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