

Research Publications

- (1) "Chebyshev Spectral Collocation Simulation of Nonlinear Boundary Value Problems in Electrohydrodynamics," *Int. J. for Computational Methods in Engineering Science & Mechanics*, Vol. 14, Issue 2, pp. 104 -115, 2013.
- (2) "Adomian Decomposition Method Applied to Study Nonlinear Equations Arising in non-Newtonian Flows," *Applied Math. Sci.*, Vol. 6, 2012, Issue 98, 4889 - 4909, 2012.
- (3) "Numerical Analysis of Steady Non-Newtonian Flows with Heat Transfer Analysis" *Int. J. Numer. Meth. Heat & Fluid Flow*, Vol. 22 Issue 1, pp. 24 - 38, 2012.
- (4) "Numerical and Analytical Solutions of an Oldroyd 8-Constant MHD Fluid with Nonlinear Slip Conditions," *Int. J. Numerical Methods in Fluids*, Vol. 67, pp. 1234 - 1246, 2011.
- (5) "Thin Film Flow of Non-Newtonian MHD Fluid on a Vertically Moving Belt," *Int. J. Numer. Meth. Fluids*, Vol. 66, Issue 5, pp. 1409-1419, 2011.
- (6) "Use of Adomian Decomposition Method in the Study of Parallel Plate Flow of a Third Grade Fluid," *Communications in Nonlinear Science and Numerical Simulations (CNSNS)*, Vol. 15, pp. 2388-2399, 2010.
- (7) "Peristaltic Flow and Heat Transfer of a MHD Newtonian Fluid with Variable Viscosity," *Int. J. Numer. Meth. Fluids*, Vol. 63, pp. 1375 - 1393, 2010.
- (8) "Breakup of a Liquid Jet Containing Solid Particles: A Singularity Approach," *SIAM Journal on Applied Mathematics*, Vol. 70, Issue 3, pp. 885-900, 2009.
- (9) "Influence of Surfactant on the Breakup of a Bubble or Thread in a Viscous Surrounding," *Journal of Fluid Mechanics*, Vol. 594, pp. 307-340, 2008.
- (10) "Unsteady MHD Flow of a Non-Newtonian Fluid on a Porous Plate," *Journal of Mathematical Analysis & Applications*, Vol. 325, pp. 724-733, 2007.
- (11) "Some Steady MHD Flows of a Second Order Fluid," *Meccanica*, Vol. 39, pp. 345-355, 2004.
- (12) "Free Surface Cusp Formation as a Failure Mechanism for Hard Disk Drives with Fluid Dynamic Bearing," *Proceedings of the Twentieth Annual Workshop on Mathematical Problems in Industry*, Vol. 20, pp. 1-24, 2004.
- (13) "Effects of Heat Transfer and Nonlinear Slip on the Steady Flow by means of Chebyshev Spectral Method" *Zeitschrift fr Naturforschung (ZNA): Journal of Physical Science*, Published Online. <http://www.znaturforsch.com/aa/v69a/c69a.htm>
- (14) "Influence of Surfactant on the Pinch-off of a Fluid Thread: Theoretical and Experimental Study," Under Review in *Canadian Journal of Chemical Engineering*, Under Review.