Dr. T. Suman Kumar

Research Publications

1. A hyperbolic system modeling currency in circulation and hoarding, with A.S. Vasudeva Murthy, *Japan Journal of Industrial and Applied Mathematics*, (Accepted).
2. A complete general solution for the unsteady Oseen equations, with B.S. Padmavathi, *ZAMP*, (Accepted).
3. A convergent numerical scheme to McKendrick–Von Foerster equation with diffusion in age, with K. Bhargav Kumar, *Numerical Methods for Partial Differential Equations*, Vol. 34, No. 6, pp 2113–2128, 2018.
4. A complete general solution for the unsteady Brinkman equations, with T. Amaranath, *Journal of Mathematical Analysis and Applications*, Vol. 461, 1365–1373, 2018.
5. Asymptotic behavior of the solution of a diffusion equation with nonlocal boundary conditions, with K. Bhargav Kumar, *Discrete and Continuous Dynamical Systems - Series B*, Vol. 22, No. 2, pp407–419, 2017.
6. On a nonlinear renewal equation with diffusion, with K. Bhargav Kumar *Mathematical Methods in the Applied Sciences* Vol. 39, pp697–708, 2016.
7. Extinction and blow-up phenomena in a non-linear gender structured population model, with K. Bhargav Kumar, *Nonlinear Analysis Series B: Real World Applications* Vol. 28, pp290–299, 2016.
8. A factorization theorem for operators occurring in the Stokes, Brinkman and Oseen equations, with T. Amaranath, *Applied Mathematics and Computation* Vol. 276, pp75–79, 2016.
9. Exact solutions of certain class of porous medium equations using variational iteration method, with K. Bhargav Kumar, in *Pacific Journal of Applied Mathematics*, Vol. 4, No. 4, pp219–224, 2012.
10. Steady state analysis of a nonlinear renewal equation, *Mathematical and computer modelling*, Vol. 53, No. 7–8, pp1420–1435, 2011.
11. Nonlinear renewal equation, with B. Perthame, In *Selected Topics On Cancer Modelling Genesis - Evolution - Immune Competition - Therapy*, eds. N. Bellomo, M. Chaplain, E. De Angelis, Series: Modelling and Simulation in Science, Engineering and Technology, Birkhäuser, 2007, pp65–96.
12. A note on linear stability of the steady state of a nonlinear renewal equation, (Submitted).
13. Relative value iteration analogue of the long time behavior of HJB equations, with K.S. Mallikarjuna Rao (Submitted).
14. A neuron network model with diffusion, with P. Michel (Submitted).
15. A convergent numerical scheme to a parabolic equation with a nonlocal boundary condition, (In preparation).