1014-35-1572   **Gnana Bhaskar Tenali** (`gtenali@fit.edu`), Department of Mathematics, Florida Institute of technology, 150 West University Blvd., Melbourne., FL 32901, and **Hariharan Seetharaman*** (`hseethar@fit.edu`), Department of Mathematics, Florida Institute of Technology, 150 West University Blvd., Melbourne, FL 32901. *Approximate Solutions of Heat equation on unbounded domains using Heatlets.*

We consider the numerical solutions of problems of heat equation on unbounded domains, using wavelet fundamental solutions called heatlets. We compare our results with those obtained by using, finite difference and finite element methods involving artificial boundary conditions. (Received September 28, 2005)