1046-37-1594　　　　　**Champike Attanayake*** (`attanac@muohio.edu`), Miami University Middletown, Middletown, OH 45042. *Long Time Error Estimate Using Contraction Properties of the Huxley's Equation.*

In this paper, long time error estimates are obtained using non-traditional methods for the Huxley's equation

$$u_t - u_{xx} = u(1-u)(u-a) \quad \text{for} \quad 0 < a < 1/2,$$

Traditional methods for analyzing exact error propagation depends on the stability of the numerical method employed. Whereas, in this paper the analysis of the exact error propagation uses evolving attractors and only depends on the stability of the dynamical system. The use of the smoothing indicator yields *a posteriori* estimates on the numerical error instead of *a priori* estimates. (Received September 16, 2008)

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