Mahmoud J. Anabtawi* (manabtawi@aus.edu), American University of Sharjah, Department of Mathematics, Sharjah, United Arab Emirates, and S. Sathananthan (satha@coe.tsuniv.edu), Tennessee State University, Nashville, TN. P-th Moment Stability for Ito-Type Parabolic Differential Equations. Preliminary report.

In this paper, the concept of stability is investigated for partial differential equations of parabolic Ito type. The concept of vector Lyapunov-like functional technique coupled with partial differential inequalities are utilized to develop a comparison principle to investigate various types of stability and convergence results such as p-th moment stability and stability in probability of the solution process of the system. (Received December 26, 2006)