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Xiao-Jie Hou and **Yi Li*** (yi-li@uiowa.edu), Department of Mathematics, University of Iowa, Iowa City, IA 52242. *Stability of Traveling wave solutions of Nonlinear Reaction Diffusion Equations.*

We investigate the local stability of traveling wave solutions of the Nonlinear Reaction Diffusion Equations in various weighted Banach spaces by analysing spectrum of the linearized operator, this result covers the stability results of the traveling wave solutions of Reaction-Diffusion equations with the well-known Fisher-KPP-type nonlinearity and with degenerate nonlinearity. (Received August 31, 2005)