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Education, 300222 Tianjin, Tianjin, Peoples Rep of China. Qualitative Study to A
Reaction-Diffusion Equation.

In this talk, we study a nonlinear reaction-diffusion equation, which can be considered as a generalized Fisher equation. Applying the qualitative theory of dynamical systems, we investigate various properties of the nontrivial bounded traveling wave solution to the generalized Fisher equation. A new class of bounded traveling wave solutions is obtained by using the method od linear vector fields and Lie Group Analysis. (Received September 05, 2005)