

Infinite time blow-up for the Chafee-Infante equation

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Resumo/Abstract:

We introduce a second parameter ϵ for the Chafee-Infante equation. As ϵ goes to zero, the equation produces stationary solutions achieving infinite norm. In addition, the solutions in the unstable manifold of the trivial equilibrium undergo infinite time blow-up. The recently developed theory of unbounded attractors is applied to investigate the asymptotic dynamics of the limiting equation. We verify that continuity properties of the compact attractors are not satisfied. This is based on joint works with C. Rocha, S. Bruschi and A. Carvalho.