

Nonlinear dynamycs with broken reflection symmetry

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A nonlinear bistable reaction-advection-diffusion system is considered. We are going to investigate the dynamics in a periodic domain in the case of an homogeneous medium first and thereafter inhomogeneous, where the inhomogeneity is going to be described by a spatially varying forcing parameter. If the homogeneous situation increasing the forcing makes the travelling waves to become stable; in the latter case, the interaction between a non-zero group velocity and inhomogeneous forcing gives rise to time-dependent solutions.