MIMS Technical Report No.00006 (200801292)

INTERFACE DYNAMICS OF THE FISHER EQUATION WITH DEGENERATE DIFFUSION

D.HILHORST, R.KERSNER, E.LOGAK and M.MIMURA

Abstract. We consider a degenerate parabolic reaction-diffusion equation with a monostable nonlinearity arising in population dynamics. In some suitable scaling limit, we prove the generation and propagation of an interface with constant normal velocity in the case that the initial condition has a convex compact support.