

Non-Local Parabolic PDEs and Travelling Waves

In this talk, I shall outline some results and methods how to study 1D parabolic-type nonlinear PDEs involving nonlocal perturbations. In particular, a result on persistence of steady states for the Fisher-KPP PDE with a nonlocal nonlinearity will be discussed in detail. Furthermore, I shall comment on travelling waves for Nagumo/Allen-Cahn-type bistable equations with a Riesz-Feller fractional-space derivative. Both parts are joint work with Franz Achleitner.