

Nonlocal diffusion in exterior domains

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We study the large-time behavior of solutions to a non-local diffusion equation, $u_t = J * u - u := Lu$, in an exterior domain, Ω , which excludes one or several holes, and with zero Dirichlet data on $\mathbb{R}^N \setminus \Omega$. J is assumed to be a nonnegative continuous function with unit integral. In this study the stationary solution plays a fundamental role.

This is a joint work with Manuel Elgueta, Fernando Quirós and Noemi Wolanski.