

Non existence and instantaneous extinction for very fast fractional diffusion equations

Matteo Bonforte⁽¹⁾, Antonio Segatti⁽²⁾, and Juan Luis Vázquez⁽¹⁾

(1) Universidad Autónoma Madrid, Spain

(2) Università di Pavia, Italy

In this talk I will discuss about non-existence of solutions of the Cauchy problem in \mathbb{R}^N for the nonlinear parabolic equation involving fractional diffusion $\partial_t u + (-\Delta)^s \phi(u) = 0$, with $0 < s < 1$ and very singular nonlinearities ϕ .