

Fractional fast diffusion with initial data a Radon measure

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Resumen. We establish a complete Widder Theory for the fractional fast diffusion equation. Our work focuses on nonnegative solutions satisfying a certain integral size condition at infinity. We prove that these solutions possess a Radon measure as initial trace, and prove the existence and uniqueness of solutions originating from such initial data. The uniqueness result is the main issue. Most of its difficulty comes from the singular character of the nonlinearity.

Palabras clave: Nonlocal singular diffusion; uniqueness; very weak solutions. . .

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Agradecimientos. Proyecto parcialmente financiado por PID2023-146931NB-I00, CEX2023-001347-S and RED2022-134784-T, todas financiadas por MICIU/AEI/10.13039/501100011033.

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