Uniqueness of very weak solutions for a fractional nonlinear diffusion

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In this talk I will present some recent results, obtained in collaboration with G. Grillo and F. Punzo, dealing with existence and uniqueness of (distributional) bounded solutions to a fractional parabolic equation of porous medium type, posed in the whole Euclidean space. Existence is established by means of a classical approximation scheme, while uniqueness is much more involved and requires a careful analysis of a suitable dual problem.