

Nonlocal obstacle problems: regularity of the solutions and the free boundaries

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Abstract: We will introduce some recent results in collaboration with L. Caffarelli and X. Ros-Oton on the optimal regularity of the solutions and the regularity of the free boundaries (near regular points) for nonlocal obstacle problems. The main novelty is that we obtain results for different operators than the fractional Laplacian. Indeed, we can consider infinitesimal generators of non rotationally invariant stable Lévy processes.