1108-35-139 **Xavier Ros-Oton*** (`ros.oton@math.utexas.edu`), Austin, TX 78751. *Regularity theory for stable operators.*

We establish sharp regularity estimates for solutions to $Lu = f$ in $\Omega \subset \mathbb{R}^n$, being L the generator of any stable and symmetric Lévy process. Such nonlocal operators L depend on a finite measure on S^{n-1}, called the spectral measure.

We study both the interior and the boundary regularity of solutions.

Even for linear and translation invariant equations, the regularity properties of solutions depend strongly on the regularity of the spectral measure. (Received January 08, 2015)

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