

LOCAL REGULARITY OF NONLOCAL OPERATORS

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In recent years several important regularity results for differential operators of second order have been extended or rather transferred to integrodifferential operators of order $\alpha/2 \in (0, 1)$. We review some of these works with a special emphasis on two issues: the notion of ellipticity for nonlocal operators and robustness of the results as $\alpha \rightarrow 2-$. The talk is based on recent joint works with Dyda, Felsinger, Mimica and Rang.