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Geoff Diestel* (diestelg@math.sc.edu), Department of Mathematics, University of South Carolina, 1523 Greene Street, Columbia, SC 29208, and **Loukas Grafakos** (loukas@math.missouri.edu). *Estimates for multilinear singular integral operators associated with Borel measures*. Preliminary report.

We prove a multilinear version of a classical result of Duoandikoetxea in the theory singular integral operators associated with rough kernels. If $\widehat{\mu}_j(\xi) = \widehat{\mu}(2^j\xi)$ where μ is a compactly supported finite Borel measure, then the linear operator $T(f) = \sum_j \mu_j * f$ is bounded on L_p for $1 < p < \infty$. We prove a multilinear version of this result without a multilinear analog of Hörmander's condition. We show that many of the corollaries of Duoandikoetxea's result transfer into the multilinear setting. (Received September 19, 2007)