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65211. Distributional estimates for multilinear operators.

We provide a method allowing to deduce distributional inequalities from certain boundedness properties of a multilinear operator and its adjoints. In particular, we show that if an m-linear operator and all its adjoints have restricted weak type (1, ..., 1, 1/m) (which is the case for multilinear Calderon-Zygmund operators), then the distribution function of the operator applied to characteristic functions has exponential decay at infinity. We use these methods to obtain similar inequalities for the bilinear Hilbert transform. (Received February 07, 2006)