

ITERATED RIESZ COMMUTATORS AND A CHARACTERIZATION
OF PRODUCT BMO

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Abstract

This is joint work with Lacey, Pipher and Wick. We give a characterization of product BMO in the several real variable multi-parameter setting. Iterated commutators of multiplication by a symbol b with all combinations of Riesz transforms are bounded if and only if the symbol b belongs to product BMO.