Tôhoku Math. J. 42 (1990), 287

ERRATUM: THE BEHAVIOR ON RADIAL FUNCTIONS OF MAXIMAL OPERATORS ALONG ARBITRARY DIRECTIONS AND THE KAKEYA MAXIMAL OPERATOR

(Tôhoku Math. J. 41 (1989), 647-656)

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(Received March 8, 1990)

Unfortunately Lemma 4 of this paper is false. This invalidates inequality (3) and the results of §4. Nevertheless, the results of §§ 1-3 remain valid upon replacing (3) by the true inequality

 $\mathcal{M}_0 f(x) \leq C \{ f_0^{\dagger}(|x|) + A f_0(|x|) \},\$

where

$$Ag(r) = \sup_{0 < a < r} (r^2 - a^2)^{-1/2} \int_a^r g(u)u(u^2 - a^2)^{-1/2} du$$

It is not hard to see that both terms on the right hand side of (3') are of restricted weak type *n* with respect to the measure $r^{n-1}dr$. Theorems 1 and 2 are now a formal consequence using interpolation. Moreover, Propositions 3 and 5 are still valid (but no longer needed for the proof of Theorem 2).

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