Singular integrals
and
multiplier operators

N. M. RIVIÈRE

University of Minnesota[1]

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Preface

    In 1952, A. P. Calderon and A. Zygmund [6] showed the boundedness of singular integral operators in the L^p spaces. One of the main tools in their proof was an extension to m dimensions of a form of F. Riesz's sun rising lemma. Later F. Jones [15], and E. B. Fabes and N. M. Rivière [9] further extended the lemma to prove the boundedness of parabolic singular integrals and singular integrals with mixed homogeneity. However in both cases the lemma kept its geometric form and its extension was obtained by a simple change of parameters in each coordinate axis.