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EXTRAPOLATION OF COMPACTNESS FOR CERTAIN PSEUDODIFFERENTIAL OPERATORS

The extrapolation result of Rubio de Francia has become a powerful tool to extend the weighted boundedness of an operator from a particular weighted Lebesgue space into others. This classical theorem has been extended to many contexts over the years and found many useful application and, more recently, versions to extrapolate compactness have been studied by several authors too. We will provide a simple alternative version of such extrapolation of compactness results and present a novel application to a class of pseudodifferential operators, establishing their compactness on weighted Lebesgue spaces. This is joint work with María Jesús Carro and Javier Soria.