1063-42-72 **Steve Hofmann** (hofmanns@missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211, and **Jose Maria Martell*** (chema.martell@uam.es), Instituto de Ciencias Matematicas, CSIC-UAM-UC3M-UCM, 28049 Madrid, Madrid, Spain. *Extrapolation of Carleson measures and Muckenhoupt weights.*

We revisit the "extrapolation" method for Carleson measures, originally introduced by John Lewis to prove A_∞ estimates for certain caloric measures. We present a purely real variable version of the method suitable for deducing that a weight is in A_∞, given appropriate control by a Carleson measure. To illustrate the applicability of this criterion, we reprove a well known theorem of R. Fefferman, Kenig and Pipher concerning the solvability of the Dirichlet problem of second order divergence form elliptic operators with data in some L^p space. (Joint work with S. Hofmann) (Received August 04, 2010)