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## Quantitative two weight estimates for dyadic operators

### Abstract

In this talk we present quantitative two weight estimates for the dyadic paraproduct and the dyadic square function. We compare known results of Holmes, Lacey, and Wick for the paraproduct when both weights are in  $A_2$  involving Bloom's BMO, and a different Carleson condition when the weights are in joint  $A_2$  plus an additional Carleson condition on the weights (both necessary and sufficient conditions for a dual two-weight boundedness of the dyadic square function). We compare these to necessary and sufficient testing conditions for each particular dyadic paraproduct when viewed as a well-localized operator in the sense of Nazarov, Treil, and Volberg.

Talk time: 07/21/2016 3:30PM— 07/21/2016 3:50PM

Talk location: Crow 204

Special Session: Harmonic analysis. Organized by K. Bickel.