

983-42-682

John J Benedetto (jjb@math.umd.edu), University of Maryland, Department of Mathematics, College Park, MD 20742, and **Alexander M Powell*** (apowell@math.umd.edu), University of Maryland, Department of Mathematics, College Park, MD 20742. *A (p, q) weighted version of a theorem of J. Bourgain.*

We shall present a (p, q) weighted version of a theorem of J. Bourgain which constructs well localized orthonormal bases for $L^2(\mathbb{R})$. We shall also prove related results concerning orthonormalized Gabor systems. (Received September 20, 2002)