

Decompositions of Hardy Martingales

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We present Davis decompositions for Hardy martingales (scalar and vector valued), prove Davis- Garsia inequalities (DGI) for Hardy martingales and their dyadic perturbations. We discuss how those DGI may be used in embedding L^1 into the quotient space L^1/H^1 .

The talk is based on the following papers

Mueller, P.F.X., A Decomposition for Hardy martingales, Indiana Math J. 61 (2012)

Mueller, P.F. X. A Decomposition for Hardy martingales (Part II), Math. Proc. Camb. Philos. Soc. (2014)