1125-42-114 **Michael T Lacey*** (lacey@math.gatech.edu), School of Mathematics, Georgia Tech, Atlanta, GA 30332. *Recent Results in Sparse Domination.* Preliminary report.

The Hilbert transform is a subtle, non-positive operator, which subtle non local effects. A Sparse operator is a positive operator, a sum of local averages. Surprising, the Hilbert transform, applied to a fixed function, can be dominated by a sparse operator, which depends upon the function. This surprising principle yields very deep information about the Hilbert transform. The principle has many extensions, and we will survey some of these, with an eye towards those topics which would have been very attractive to Cora Sadosky. (Received August 01, 2016)