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**Eric Price\*** (ecprice@mit.edu), 32 Vassar St #G-678, Cambridge, MA 02139. *Geometric Aspects of Compressive Sensing*.

I will give an overview of the use of geometry in compressive sensing. The goal of compressive sensing is to recover sparse signals  $x \in \mathbb{R}^n$  from  $m \ll n$  linear measurements  $Ax$ . Developed over the last decade, compressive sensing is a well-defined mathematical problem with applications in diverse areas such as streaming algorithms, image acquisition, and disease testing. I will start with an overview of the basic framework of compressive sensing, covering how high dimensional geometry is used to characterize when compressive sensing is possible. I will then cover some recent research on exploiting the (low-dimensional) geometric structure of images, leading to more accurate compressive sensing algorithms for images. (Received September 22, 2011)