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The problem of dilating, up to a constant, a tuple of symmetric matrices to a tuple of commuting selfadjoint contractive operators on Hilbert space is considered. For the purposes here, an operator T on a Hilbert space H dilates to an operator J on a Hilbert space K if H is a subspace of K and $T=PJP$. Here P is the orthogonal projection of K onto H . Fix a positive integer d and let $C(r)$ denote the collection of symmetric d by d matrices of norm at most r . The optimal $k(d)$ for which there exists a Hilbert space K and family F of commuting selfadjoint contractions on K such that the collection $C(k(d))$ simultaneously dilates to F is identified via an explicit construction. Connections with matrix cube and free spectrahedral inclusion problems will be discussed as time permits. The work is joint with Bill Helton, Igor Klep and Markus Schweighofer. (Received September 08, 2014)