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Debra Boutin* (dboutin@hamilton.edu), Mathematics Department, Hamilton College, Clinton, NY 13323. *Connecting the isometric embedding dimension and the determining number of a graph.* Preliminary report.

A graph is said to be *isometrically embedded* in \mathbb{R}^d if it can be embedded so that the Euclidean isometries of the vertices are precisely the automorphisms of the graph. A set $S \subset V(G)$ is said to be a *determining set* if whenever two automorphisms agree on S they agree on all of $V(G)$. This talk will introduce these two concepts and illuminate a connection between them. In particular, we will see that if a graph can be isometrically embedded in \mathbb{R}^d , then it has a determining set of size d . (Received September 25, 2005)