1010-46-94 William B. Johnson and Nirina Lovasoa Randrianarivony* (lova@math.missouri.edu). Coarse embeddings into a Hilbert space.

A coarse embedding of a metric space into another is a map which controls the distances between points uniformly on a large scale. We first show that ℓ_p (p > 2) does not coarsely embed into a Hilbert space. We then build on this proof to give a characterization of the quasi-Banach spaces that coarsely embed into a Hilbert space. (Received August 22, 2005)