1129-46-131 Konstantin Makarychev (konstantin@northwestern.edu) and Yury Makarychev* (yury@ttic.edu). A Union of Euclidean Metric Spaces is Euclidean.

Suppose that a metric space X is the union of two metric subspaces A and B that embed into Euclidean space with distortions D_A and D_B , respectively. We prove that then X embeds into Euclidean space with a bounded distortion (namely, with distortion at most $7D_AD_B + 2(D_A + D_B)$). Our result settles an open problem posed by Naor. Additionally, we present some corollaries and extensions of this result. (Received March 10, 2017)