

1039-28-145

**Raanan Schul\***, Mathematics Department, UCLA, Box 951555, Los Angeles, CA 90095-1555.

*Bi-Lipschitz decomposition of Lipschitz functions into a metric space.*

We will outline the proof of a quantitative version of the following statement. Given a Lipschitz function  $f$  from the  $k$ -dimensional unit cube into a general metric space, one can decomposed  $f$  into a finite number of Bi-Lipschitz functions  $f|_{F_i}$  so that the  $k$ -Hausdorff content of  $f([0, 1]^k \setminus \cup F_i)$  is small. The case where the metric space is  $\mathbb{R}^d$  is a theorem of P. Jones (1988). (Received March 10, 2008)