Shmuel Weinberger* (Shweinberger@gmail.com), University of Chicago, Department of Mathematics, 5734 S. University Ave., Chicago, IL 60637-1514. Homological Methods for the study of Data Sets

A number of groups have been using homological techniques to get information about data sets that seem to have geometric structure or origin. In this talk, based substantially on joint work with P.Niyogi and S.Smale, and with Y.Baryshnikov, I will discuss theoretical bases for such methods and information about the sample complexity of these problems (Received September 29, 2008)