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Anna Vershynina* (aver@math.ucdavis.edu), Department of Mathematics, University of California Davis, One Shields Ave, Davis, CA 95616, and **Qinglan Xia**. *On the dimension of measures.*

In this talk I will talk about dimension of measures. As we know, dimension of the set may be defined in many meaningful ways: Hausdorff dimension, Minkowski dimension, etc. These definitions agree when the set is nice enough, but not necessarily agree when the set is not that nice. Which dimension is geometrically more meaningful? In this talk we introduce a new metric, called the dimensional distance, between measures. An interesting result is that the distance under this new metric between the measure and a Dirac mass is the dimension of this measure. We also show that the dimension of the measure is bounded above by the Minkowski dimension and below by the Hausdorff dimension of the set the measure is concentrated on. (Received January 14, 2009)