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**Imre Bárány\*** (barany@renyi.hu), Rényi Institute, PoB 127, Budapest, 1364, Hungary. *Random convex chains.*

Assume  $K$  is a convex body in the plane and let  $X_n$  be a random sample of  $n$  independent points chosen uniformly from  $K$ . Define  $Y$  as the maximal size subset of  $X_n$  that is in convex position, that is, no point from  $Y$  is in the convex hull of the other points of  $Y$ . The aim of this talk is to explain several properties of  $Y$ . It turns out, for instance, that  $|Y|$  is strongly concentrated near its expectation. This implies that the convex hull of  $Y$  has a limiting shape. (Received January 31, 2007)