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Bing Li, Narn-Rueih Shieh and Yimin Xiao* (xiao@stt.msu.edu), Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824. *Hitting Probabilities and Packing Dimensions of the Random Covering Sets*. Preliminary report.

By applying the method of limsup type random fractals, as illustrated in Khoshnevisan, Peres and Xiao (2000), we determine the hitting probabilities and packing dimensions of the Dvoretzky random covering sets on the circle. Our result also provides an alternative way to obtain the Hausdorff dimensions of such sets, which can be obtained by the mass transference principle of Beresnevich, and S. Velani (2006) and was proved by Durand (2010) in another way recently. (Received September 20, 2011)