1030-46-37 **Constantine Georgakis***, Department of Mathematics, DePaul University, 2320 N. Kenmore Ave., Chicago, IL 60614. *Hausdorff Transformations and Exchangeable Random Variables.* Preliminary report.

Hardy established that the discrete Hausdorff transformation generated by a positive measure on the unit interval, which includes the transformation of arithmetic means, is a bounded operator on the sequence space lp whose norm is the fractional moment of order -1/p of the measure (J. London Math. Soc. 18 (1943), 45-49). We present a probabilistic approach to Hardy's theorem that combines de Finneti's representation theorem of exchangeable Bernoulli random variables and the Riemann-Liouville fractional integral transform. This approach leads to a new proof of an extension Hardy's theorem and its multivariate analogue on a weighted lp space. (Received June 27, 2007)