

# Recurrence relation for the moments of order statistics from a beta-Pareto distribution

Hossein Jabbari KHAMNEI <sup>1</sup>, Roghaye MAKOUYI <sup>2</sup>

<sup>1</sup> *University of Tabriz, Tabriz, Iran*

*E-mail: jabbari@tabrizu.ac.ir*

<sup>2</sup> *Tabriz University of Medical Sciences, Tabriz, Iran*

*E-mail: R.Makuyi@yahoo.com*

**Abstract:** In this paper, a novel cumulative distribution function (*c.d.f.*) for beta-Pareto (*BP*) distribution, through two distinct practical frames, is developed. However, the presented models are obviously more pragmatic than the ones being demonstrated in previous works, in the case of extending the further relations. Then, using the exhibited *c.d.f.s*, certain recurrence relations for the single and product moments of the order statistics of a random sample of size  $n$  arising from beta-Pareto distribution are derived.

**Keywords:** Order statistics, single and product moments, recurrence relations, beta-Pareto

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