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ON CHARACTERIZING THE BIVARIATE EXPONENTIAL AND GEOMETRIC DISTRIBUTIONS

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Abstract. In this note, a characterization of the Gumbel's bivariate exponential distribution based on the properties of the conditional moments is discussed. The result forms a sort of bivariate analogue of the characterization of the univariate exponential distribution given by Sahobov and Geshev (1974) (cited in Lau and Rao ((1982), *Sankhyā Ser. A*, **44**, 87)). A discrete version of the property provides a similar conclusion relating to a bivariate geometric distribution.

Key words and phrases: Characterization, bivariate exponential and geometric distributions, conditional moments.