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A Short Note on Perez's Approximation by Dependence Structure Simplification

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Abstract: Perez's approximations of probability distributions by dependence structure simplification were introduced in 1970s, much earlier than graphical Markov models. In this paper we will recall these Perez's models, formalize the notion of a compatible system of elementary simplifications and show the necessary and sufficient conditions a system must fulfill to be compatible. For this we will utilize the apparatus of compositional models.

Keywords: approximation of probability distributions; dependence structure simplification; compatibility; compositional models;

AMS Subject Classification: 62E17; 68T30;

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