On Possibilistic Marginal Problem

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Abstract: A possibilistic marginal problem is introduced in a way analogous to probabilistic framework, to address the question of whether or not a common extension exists for a given set of marginal distributions. Similarities and differences between possibilistic and probabilistic marginal problems will be demonstrated, concerning necessary condition and sets of all solutions. The operators of composition will be recalled and we will show how to use them for finding a T-product extension. Finally, a necessary and sufficient condition for the existence of a solution will be presented.

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