

A FRAMEWORK FOR POSITIVE DEPENDENCE

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Abstract. This paper presents, for bivariate distributions, a unified framework for studying and relating three basic concepts of positive dependence. These three concepts are positive dependence orderings, positive dependence properties and measures of positive dependence. The latter two concepts are formally defined and their properties discussed. Interrelationships among these three concepts are given, and numerous examples are presented.

Key words and phrases: Positive dependence, positive dependence ordering, positive dependence property, measure of positive dependence, Fréchet bounds, positive quadrant dependence, measure of association, ordinal contingency table.