

One of the tools for study of dependence between random variables are copulas. While modelling multidimensional variables it is possible using Sklar's theorem to model through copulas marginal distributions and relationship between them separately, this approach thus enables us to split construction of multi-dimensional distributions into these two factors. With marginal distributions fixed, the construction is consisting of appropriate copula choice only. This thesis deals with copulas in the case of two-dimensional distributions with continuous fixed marginal distributions and is focused on parametrical copulas, mainly through Archimedean copulas. Basic properties of copulas with Sklar's theorem, which enables studying copulas in stochastic context, are presented here. Further, measures of dependence such as Kendall's tau, Spearman's rho and coefficients of tail dependence are in connection with copulas studied in this thesis. At the end, the thesis deals with methods of estimation unknown parameters, which are illustrated on two examples.