

The thesis deals with three selected constructions of bivariate distributions. The first approach is to use the Fréchet bounds, which determine restrictions on the distribution function and the correlation coefficient of bivariate distribution. The second construction is the Plackett distribution which is a class of distributions containing the Fréchet bounds and the member corresponding to independent random variables. The third construction is a trivariate reduction method that is used for a construction of bivariate gamma, exponential and Poisson distribution. Only bivariate Dirichlet distribution has slightly different construction. For the last four mentioned distributions the following basic characteristics are derived: density function, marginal distributions, correlation coefficient and some conditional moments, in case of exponential and Dirichlet distribution even conditional distribution.