

This thesis concentrates on stochastic programming problems based on empirical and theoretical distributions and their relationship. Firstly, it focuses on the case where the empirical distribution is an independent random sample. The basic properties are shown followed by the convergence between the problem based on the empirical distribution and the same problem applied to the theoretical distribution. The thesis continues with an overview of some types of dependence – m -dependence, mixing, and also more general weak dependence. For sequences with some of these types of dependence, properties are shown to be similar to those holding for independent sequences. In the last section, the theory is demonstrated using numerical examples, and dependent and independent sequences, including sequences with different types of dependence, are compared.