

This thesis deals with the APARCH model, which is capable of capturing various specific features of the behavior of financial time series, such as the leverage effect, i.e., the asymmetric response to positive and negative shocks. In the theoretical part of the thesis, we first define the necessary concepts to understand the APARCH model and then provide an overview of the probabilistic distributions that can be used in the model. In the practical part, the APARCH(1,1) model is illustrated using simulated data and subsequently applied to the DJIA index.