Abstract:
In this thesis, the interest rates derivatives and their valuation based on the future development of interest rates are presented. The Hull-White model focusing on the modeling of the instantaneous spot rates is described in detail. The model is calibrated to the market caplet volatilities and is used to evaluate various interest rates derivatives. The main emphasis is put on the LIBOR market model describing the development of set of forward rates. There are presented and in detail discussed results of the calibration of LMM model on the market swaption volatilities. At the end the two models are compared.