

**Title:** One factor interest rate models

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**Abstract:**

In this thesis we looked closely at the models of interest rates that are applied in the area of financial mathematics and actuarial sciences. There are several models that try to describe the behavior of yield curve plausibly. In most of the cases the models stem from probability theory and coincidence. These models are also means for assessment of financial derivatives whose price depends on the interest rates movements. The work deals with three one-factor models which are analyzed into more details in the second chapter. The last chapter is about real-data calibration.

**Keywords:** one factor models, interest rates, maximum likelihood method