This thesis is focused around Edgeworth’s expansion for approximation of distribution for parameter estimation. Aim of the thesis is to introduce term Edgeworth’s expansion, its assumptions and terminology associated with it. Afterwards demonstrate process of deducting first term of Edgeworth’s expansion.
In the end demonstrate this deduction on examples and compare it with different approximations (mainly central limit theorem), and show strong and weak points of Edgeworth’s expansion.