

1 AbstraktEN

The diploma thesis deals with linear mixed effects models. In the first chapter, we discuss parameter estimation and hypothesis testing in the linear mixed effects models. The second chapter is dedicated to graphical diagnostics. We look at the suitable diagnostic plots for residuals and random effects estimates. It is closely described, how the violations of assumptions affect the diagnostic plots. In the third chapter we have consequences of the violations of assumptions on the parameter estimates and results of hypothesis testing for fixed effects.