Abstract

The prediction of a growth process is an important topic in biology, economy and engineering sciences. We consider especially the growth of a crack and of a kidney dialysis factor. In this context, prediction intervals are of interest to express the precision of the prediction. We discuss several approaches for prediction intervals for growth models. Some of these approaches use only the observations of the growth process for which the prediction should be done. Especially, approaches of nonlinear models and SDE models are presented. Additionally, approaches are studied which use also the information of other growth processes. Here a special mixed linear model is considered.