

The concern of this thesis is to discuss classification of different objects based on longitudinal observations. In the first instance the reader is introduced to a linear mixed-effects model which is useful for longitudinal data modeling. Description of discriminant analysis methods follows. These methods are usually used for classification based on longitudinal observations. Individual methods are introduced in the theoretic aspect. Random effects approach is generalized to continuous time. Subsequently the methods and features of the linear mixed-effects model are applied to real data. Finally features of the methods are studied with help of simulations.