Design optimality in growth curve models

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The propose of this presentation is the characterization of optimal designs in a growth curve model. Assuming that an experimental design is fixed A-, D- optimal allocation of time points in a quadratic and cubic growth curve model for different known correlation structures is determined. In this presentation there is studied how the transformation of experimental domain and correlation structures influence on the choice of optimal design. Moreover, we try to extend the theory of optimal designs to nonparametric analysis of growth curve.