On inverse prediction in mixed models

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Abstract

This talk will present a general approach to inverse prediction in the context of mixed models. Given training data on Y at x and covariates z, and a mystery specimen with $Y = y_*$ and $Z = z_*$, the objective is to construct a confidence set on the subject's unknown x_*. Simulation results will be presented for three different settings: (1) heteroscedastic linear regression, (2) classification, in which x is categorical, and (3) categorical response Y.

Keywords

Multivariate calibration, Categorical response.