Reliability Prediction of Tires Using Linear Mixed-Effects Model

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Abstract : We widely use normal linear mixed-effects model to analysis data in repeated measurement. In case of detecting heteroscedasticity and the non-normality of the population distribution at the same time, normal linear mixed-effects model can give improper result of analysis. To achieve more robust estimation, we use heavy tailed linear mixed-effects model which gives more exact and reliable analysis conclusion than standard normal linear mixed-effects model.