Design-adaptive Minimax Local Linear Regression for Longitudinal/Clustered Data

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We study a weighted local linear regression smoother for longitudinal/clustered data, which takes a similar form as the classical weighted least squares estimate. The proposed local linear smoother maintains the advantages of both methods in computational and theoretical simplicity, variance minimization and bias reduction. The proposed smoother is optimal in the sense that it attains the linear minimax efficiency when the within-cluster correlation is correctly specified. This is a joint work with Zhezhen Jin and Jianqing Fan

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