

# **ESTIMATING SUFFICIENT REDUCTIONS OF THE PREDICTORS IN ABUNDANT HIGH-DIMENSIONAL REGRESSIONS**

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We study the asymptotic behavior of a class of methods for sufficient dimension reduction in high-dimension regressions, as the sample size and number of predictors grow in various alignments. It is demonstrated that these methods are consistent in a variety of settings, particularly in abundant regressions where most predictors contribute some information on the response, and oracle rates are possible. Simulation results are presented to support the theoretical conclusion.