BIG-SIR a Sliced Inverse Regression Approach for Massive Data

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Résumé

In a massive data setting, we focus on a semiparametric regression model involving a real dependant variable Y, a p-dimensional covariable X. This model includes a dimension reduction of X via an index $X'β$.*TheEffectiveDimensionReduction(EDR)direction*$β$*cannotbedirectlyestimatedbytheSlicedInverseRegressio*

Theconsistencyofourestimatorisestablishedanditsasymptoticdistributionisgiven.Extensionstomultipleindicesmodels,
dimensionalresponsevariableand/orSIR$_{α}$*−basedmethodsarealsodiscussed.Simulationstudyusingour{edrGraphi*
summarise − smoothapproachthroughthe{bigvis}package.

*Intervenant