

Welcome seminar for new faculty

Eigen sign-flip test for semiparametric regression

A seminar by Federico Ferraccioli

University of Padua - ITA

Friday 23 Jun 2023 | 12:30 p.m.
Room Benvenuti and live Zoom
Department of Statistical Sciences

In this seminar, a nonparametric test for semiparametric penalized regression models is presented. The test is based on random sign-flipping of an appropriate transformation of the vector of residuals, that exploits a spectral decomposition of the residualizing matrix associated with the nonparametric part of the model.

The formulation allows for a wide applicability of the test to a vast class of extensively used semiparametric regression models, including for instance models based on univariate or multivariate splines.

The good asymptotic properties of the proposed test are discussed, together with its good control of the Type I error and power, even in challenging data scenarios.



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



DIPARTIMENTO
DI SCIENZE
STATISTICHE