**PhD program in Statistics** 

## DSS Statistics Seminar April 21, 2023, 12:00

In person Room 24 (CU002)

Webinar https://uniroma1.zoom.us/j/86881977368?pwd=SWRFc

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## The Multivariate Heterogeneous Preference Estimator for Switching Multiple Price List

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The Multiple Price List (MPL) and Switching Multiple Price List (sMPL) provide a useful framework for estimating preference parameters, most usually risk aversion, from a sample of experimental subjects or survey respondents. In this paper, we consider designs in which more than one sMPL is presented to each subject, allowing more than one preference parameter to be estimated simultanously, and we propose a consistent estimator in this setting - the Multivariate Heterogeneous Preference (MHP) estimator. Focusing on the bivariate case of two sMPLs and two preference parameters, we demonstrate that non-standard econometric techniques, namely Monte Carlo integration with importance sampling, are required to implement the MHP estimator. Via a Monte Carlo exercise, we show that our estimator has good finite-sample properties. Finally, we apply the MHP estimator to a real data set and compare the estimates to those obtained using an inconsistent estimator applied in previous studies.

Joint work with

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