## A QUANTITATIVE HEPPES THEOREM, MULTIVARIATE BERNOULLI DISTRIBUTIONS AND MORE

## Ricardo Fraiman

Centro de Matemática, Universidad de la República, Uruguay, Uruguay fraimanricardo@gmail.com

Proving some extensions of a theorem of Heppes on finitely supported discrete probability measures, we address the problems of classification and testing based on projections. In particular, when the support of the distributions is known in advance (as for instance for multivariate Bernoulli distributions), a single suitably chosen projection determines the distribution. Several applications of these results are considered. If we have time we will also consider the problem of testing for ellipsoidal distributions from finite number of projections.

Joint work with Leonardo Moreno and Thomas Ransford

Trabajo en conjunto con Leonardo Moreno (Universidad de la República, Uruguay) y Thomas Ransford (Universitè Laval, Canada).