



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



PHD COURSE
IN STATISTICS

Specialist Course | Cycle XXXIV

December 17, 2018 | Campus S. Caterina

Propensity Score Methods : Theory and Applications

Bruno Arpino

Universitat Pompeu Fabra, Barcelona

09.00 – 10.30	Theory	Room Cucconi
11.00 – 12.30	Theory	Room Cucconi
14.00 – 17.00	Laboratory	ASID17

Abstract

In observational studies, estimation of causal effects often relies on the assumption that all relevant confounders are observed. Under this assumption, propensity score matching (PSM) can be used to adjust for observed confounders. PSM is a semiparametric alternative to regression models that consists of two steps: 1) estimation of the probability of receiving the treatment (propensity score); 2) matching on the estimated propensity score. We will discuss the main advantages and disadvantages of PSM. We will also apply PSM on real data using R routines.

<http://www.stat.unipd.it/fare-ricerca/courses-201819-xxxiv-cycle>