

Reading List

References

- ▶ The propensity score
 - ▶ Rosenbaum and Rubin (1983): The introduction of the propensity score, gives basic definitions and properties.
- ▶ Applications
 - ▶ Austin (2011)
- ▶ Extensions beyond binary treatments
 - ▶ Hirano and Imbens (2004)
 - ▶ Imai and van Dyk (2004)
- ▶ Propensity score regression
 - ▶ Robins et al. (1992)
- ▶ Weighting
 - ▶ Lunceford and Davidian (2004)
 - ▶ Bang and Robins (2005)

References

- ▶ The marginal structural model
 - ▶ Hernán et al. (2000)
 - ▶ Hernán et al. (2001)
- ▶ Model selection
 - ▶ Brookhart et al. (2006)
- ▶ Longitudinal studies
 - ▶ Moodie and Stephens (2012)
 - ▶ Graham et al. (2014)
- ▶ High-dimensional settings
 - ▶ Schneeweiss et al. (2009)
- ▶ Bayesian methods
 - ▶ Rubin (1978)
 - ▶ McCandless et al. (2009)
 - ▶ An (2010)
 - ▶ Saarela et al. (2015)

References

- An, W. (2010). Bayesian propensity score estimators: incorporating uncertainties in propensity scores into causal inference. *Sociological Methodology* **40**, 151–189.
- Austin, P. C. (2011). A tutorial and case study in propensity score analysis: An application to estimating the effect of in-hospital smoking cessation counseling on mortality. *Multivariate Behavioral Research* **46**, 119–151.
- Bang, H. and Robins, J. M. (2005). Doubly robust estimation in missing data and causal inference models. *Biometrics* **61**, 962–972.
- Brookhart, M. A., Schneeweiss, S., Rothman, K. J., Glynn, R. J., Avorn, J., and Sturmer, T. (2006). Variable selection for propensity score models. *American Journal of Epidemiology* **163**, 1149–1156.
- Graham, D. J., McCoy, E. J., and Stephens, D. A. (2014). Quantifying causal effects of road network capacity expansions on traffic volume and density via a mixed model propensity score estimator. *Journal of the American Statistical Association* **109**, 1440–1449.
- Hernán, M. A., Brumback, B., and Robins, J. M. (2000). Marginal structural models to estimate the causal effect of zidovudine on the survival of HIV-positive men. *Epidemiology* **11**, 561–570.
- Hernán, M. A., Brumback, B., and Robins, J. M. (2001). Marginal structural models to estimate the joint causal effect of nonrandomized treatments. *Journal of the American Statistical Association* **96**, 440–448.

References

- Hirano, K. and Imbens, G. W. (2004). The propensity score with continuous treatments. Applied Bayesian modeling and causal inference from incomplete-data perspectives pages 73–84.
- Imai, K. and van Dyk, D. A. (2004). Causal inference with general treatment regimes: Generalizing the propensity score. Journal of the American Statistical Association **99**, 854–866.
- Lunceford, J. K. and Davidian, M. (2004). Stratification and weighting via the propensity score in estimation of causal treatment effects: a comparative study. Statistics in Medicine **23**, 2937–2960. DOI: 10.1002/sim.1903.
- McCandless, L. C., Gustafson, P., and Austin, P. C. (2009). Bayesian propensity score analysis for observational data. Statistics in Medicine **28**, 94–112.
- Moodie, E. E. M. and Stephens, D. A. (2012). Estimation of dose-response functions for longitudinal data using the generalised propensity score. Statistical Methods in Medical Research.
- Robins, J. M., Mark, S. D., and Newey, W. K. (1992). Estimating exposure effects by modelling the expectation of exposure conditional on confounders. Biometrics **48**, 479–495.
- Rosenbaum, P. R. and Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. Biometrika **70**, 41–55.
- Rubin, D. B. (1978). Bayesian inference for causal effects: The role of randomization. The Annals of Statistics **6**, pp. 34–58.

References

- Saarela, O., Stephens, D. A., Moodie, E. E. M., and Klein, M. B. (2015). On Bayesian estimation of marginal structural models. Biometrics **June**,.
- Schneeweiss, S., Rassen, J. A., Glynn, R. J., Avorn, J., Mogun, H., and Brookhart, M. A. (2009). High-dimensional propensity score adjustment in studies of treatment effects using health care claims data. Epidemiology **20**, 512–522. doi:10.1097/EDE.0b013e3181a663cc.