**Introduction**

This paper provides an in-depth discussion of the Intelligent Randomized Control Trial (iRCT) method, which is derived from the findings and methods of the nmatch command from Stata (Abadie et al. 2004). This python package uses propensity scores in order to implement a nearest-neighbor matching estimator in order to determine the average treatment effects of a certain treatment variable on an outcome variable.

The propensity scoring method and matching estimator that is used in order to determine the nearest-neighbor match is based on Rosenbaum and Rubin’s work (Rosenbaum and Rubin 1983). The use of propensity scoring is done in order to combine all covariates into a single data value that can then be used as the comparator for the matching estimators. It also facilitates the removal of biases that may occur from all observed covariates. The purpose of this method is to create a way of determining causal relationships for randomized control trials, similar to the difference-in-differences method.

When compared to other common causal discovery methods, such as PC, GES, FCI, rFCI, and FGS, iRCT was found to (insert results and tables here to create comparison).

**References**

Rosenbaum and Rubin 1983 <https://academic.oup.com/biomet/article/70/1/41/240879?login=true>

Abadie et al. 2004 <https://journals.sagepub.com/doi/abs/10.1177/1536867X0400400307>