

Step	Decisions, questions and solutions	Section
1. Estimation of propensity score		
Model choice	<ul style="list-style-type: none"> ◇ Unproblematic in the binary treatment case (logit/probit) ◇ In the multiple treatment case multinomial probit or series of binomial models should be preferred 	3.1 3.1
Variable choice	<ul style="list-style-type: none"> ◇ Variables should not be influenced by participation (or anticipation) and must satisfy CIA 	3.1
→ Economic issues	Choose variables by economic theory and previous empirical evidence	3.1
→ Statistical issues	‘Hit or miss’ method, stepwise augmentation, leave-one-out cross-validation	3.1
→ Key variables	‘Overweighting’ by matching on subpopulations or insisting on perfect match	3.1
2. Choice among alternative matching algorithms		
Matching algorithms	<ul style="list-style-type: none"> ◇ The choice (e.g. NN matching with or without replacement, caliper or kernel matching) depends on the sample size, the available number of treated/control observations and the distribution of the estimated propensity score → Trade-offs between bias and efficiency! 	3.2
3. Check overlap and common support		
Common support	<ul style="list-style-type: none"> ◇ Treatment effects can be estimated only over the CS region! 	3.3
→ Tests	Visual analysis of propensity score distributions	3.3
→ Implementation	‘Minima and maxima comparison’ or ‘trimming’ method Alternative: Caliper matching	3.3
4.1 Assessing the matching quality		
Balancing property	<ul style="list-style-type: none"> ◇ Is the matching procedure able to balance the distribution of relevant covariates? ◇ If matching was not successful go back to step 1 and include higher-order terms, interaction variables or different covariates 	3.4 ↔ Step 1