

## Causality in microeconometrics

### Syllabus:

- introduction to IV
- the counterfactual approach and the fundamental problem of causal inference
- the LATE theorem: derivation and interpretation of the results from IV estimates
- Examples: the Vietnam lottery, the effect of fertility on labour supply, the effect of schooling on earnings
- Difference in difference
- Synthetic control method
- Examples: German Reunification; proposition 99 anti tobacco in California
- Regression discontinuity design: fuzzy and sharp case;
- Endogenous bandwidth; bias correction mechanisms, falsification tests, inference away from the cutoff, TED
- Regression kink design