

Things can go wrong

1. Intervene on Y (or its missing cause)
2. Non-additive, non-linear
3. Not enough interventions
4. Small sample size
5. Left out an important predictor

Then ICP.

\emptyset

\emptyset

False Positives

\emptyset

1. Confounding $\Rightarrow \emptyset$

2. Unconfounding \Rightarrow okay

Hidden ICP.

Charles's question: What happens if non-additive and small sample size.

Simulation:

- $y = X\beta(1 + \sigma \cdot \varepsilon) + \varepsilon'$
- $\log y = X\beta + \sigma\varepsilon$

generate a small sample, run ICP.

What does it say?