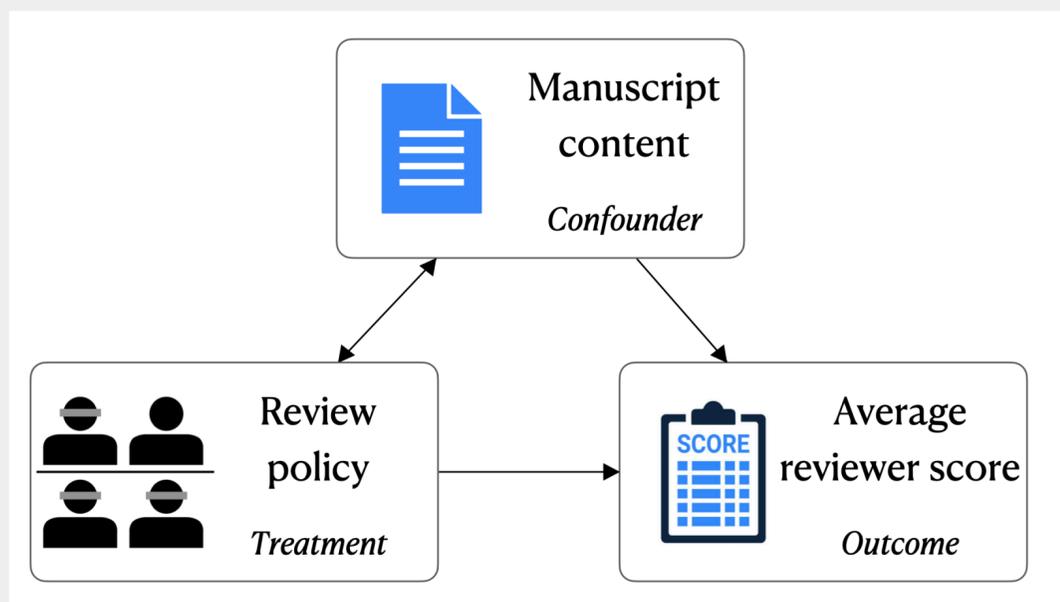


For our case study of estimating the **causal effects of peer review**, human judges preferred text matches from **our method**.



Data: ICLR 2017 (single-blind), 2018 (double-blind)

Variable Ratio Matching with Embeddings (VRM-E)

1. Off-the-shelf embeddings
2. Anchor group = smallest treated or untreated group
3. Agglomerative clustering on anchor group embeddings (with max cos. dist.)
4. k-nearest neighbors in non-anchor group for each cluster centroid in Step 3 (with max cos. dist.)
5. Matches plugged into causal matching estimator

Method	Raw prefs.	Pref. %
VRM-E	212	70%
Random matches	38	13%
SPSM	53	17%

Method	ATC	95% CI
VRM-E	-0.17	[-0.29, -0.05]
Naive (unadjusted)	-0.25	[-0.39, -0.11]
SPSM	-0.26	[-0.38, -0.14]



Code and
paper

Causal Matching with Text Embeddings:
A Case Study in Estimating the Causal
Effects of Peer Review Policies.

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