Combine Temporal Overlap Correction and B2B

Overlap correction:
- Linear deconvolution
- Removes spurious effects caused by overlapping neural responses

Back-to-back regression:
- Disentangles the collinear factors
- Decoding → Encoding
- Robust to high-dimensional EEG and non-orthogonal predictors

Simulation

> Data Simulation is missing here

ZuCo dataset
- Sentiment reading task, normal reading task, task-specific task.
- Encompasses EEG and eye-tracking data of 21,629 words in 1107 sentences and **154,173** fixations.

What we aim to do:
- Combine overlap correction and b2b, apply it to the ZuCo natural reading dataset.
- **Y-FRP**: overlap-(in)corrected, fixation-locked EEG
- Possible predictors **X**:
    - Core linguistic predictors:
        - Word length: ~100–200 ms
        - Semantic category: ~300–600 ms
    - Eye-movement covariates (to control for oculomotor effects)
        - Fixation duration;
        - Landing position;
        - First vs. refixation