

1. Data Acquisition

Text Data Projects

- Manifesto platforms
- Campaign media text

Expert Survey Projects

- CHES, V-Party, POPPA & GPS
- Morgan historical survey



2. Data Harmonization

Party Identification

- PartyFacts harmonization
- Alliance mapping

Item Orientation

- Directional polarity
- Inverted item reversal

Scale Harmonization

- Text item counts
- Expert scale mapping



3. Dynamic Two-Dimensional Modeling

Latent State Process

- Economic & Cultural scales
- Segment random walks

Likelihood Functions

- Hurdle-binomial text counts
- Beta-binomial expert means

Estimation & Anchoring

- General left-right mixtures
- Hamiltonian Monte Carlo



4. Data Extraction & Validation

Primary Panel Release

- 1944–2025 election panel
- Posterior means & CIs

Secondary Output

- Annual trajectories
- Composition metadata

Validation & Diagnostics

- Blocked holdout & PPC
- Ablation & sensitivity