

A

dataprepared = TEprepare(cfgTEP,data)

Check data and inputs
Optimize embedding parameters

dataprepared

B

TEpermtest = TESurrogatestats(cfgTESS,dataprepared)

Check data and inputs

- (1) Embed original data per trial and channel combination
- (2) Estimate TE for each embedded trial and channel combination

transferentropy

- (3) Handle volume conduction:

Faes method (recommended):

- Condition on the future sample of the source time course

OR

Shift test:

- Embed shifted data per trial and channel combination
- Estimate TE for each embedded trial and channel combination
- Test shifted against original data

- (4) Perform a surrogate test

- Embed surrogate data per trial and channel combination
- Estimate TE for each embedded trial and channel combination

transferentropy

- Test surrogate against original data

TEperm

C

TEpermtest.TEpermvalues with columns:

- 1 - p-value
- 2 - significance at alpha level
- 3 - significance at corrected alpha level
- 4 - difference between TE and median of the surrogate distribution
- 5 - volume conduction