LIMO toolbox: LInear Modeling of EEG data.

List files saved on the disk and their dimensions

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From 1st level analysis using mass univariate approach

In the subject analysis folder, the data, parameters and results are saved

Yr.mat: the EEG data from the .set reorganized to fit X, that is grouped by conditions if Cat ~=0; dimension [electrodes x time frames x trials]

Yhat.mat: the predicted data; dimension [electrodes x time frames x trials]

Beta.mat: the beta values (parameter estimates); dimension [electrodes x time frames x number of parameters in the model (columns of X)]

Res.mat: the residuals (non modelled) data; dimension [electrodes x time frames x trials]

R2.mat: the model fit statistic, i.e. percentage of variance explained; dimension [electrodes x time frames x R^2/F/p values]

Condition_effect_X: refers to a factor effect in categorical designs; dimension [electrodes x time frames x F/p values).

Interaction_effect_X: refers to an interaction between factors, dimension [electrodes x time frames x F/p values).

Covariate_effect_X: refers to the effect of a continuous regressor, dimension [electrodes x time frames x F/p values).

semi_partial_coef_X.mat: refers to the semi-partial coefficient of a factor (defined by LIMO.design.nb_conditions) or a covariate (defined in LIMO.design.nb_continuous), dimension [electrodes x frames x R2/F/p values].

con_X.mat: refers to a t contrast, dimension [electrodes x frames x cB/standard error/df/t/p values].

ess_X.mat: refers to a F contrast, dimension [electrodes x frames x cB/standard error/df/t/p values].

--- adding bootstrap, in the H0 subfolder

boot_table: the resampling table used, dimension [number of trials x number of bootstraps]

H0_Betas: dimension [electrodes x time frames x number of parameters in the model (columns of X) x number of bootstraps]

H0_R2: dimension: [electrodes x time frames x R^2/F/p values x number of bootstraps]

H0_Condition_effect_X: dimension [electrodes x time frames x F/p values x number of bootstraps]

H0_Interaction_effect_X: dimension [electrodes x time frames x F/p values x number of bootstraps]

H0_Covariate_effect_X: dimension [electrodes x time frames x F/p values x number of bootstraps]

H0_semi_partial_coef_X.mat: dimension [electrodes x frames x R2/F/p values x number of bootstraps].

H0_con_X.mat: dimension [electrodes x frames x cB/t/p values x number of bootstraps].
H0_ess_X.mat: dimension [electrodes x frames x cB/F/p values x number of bootstraps].

--- adding tfce, in the TFCE subfolder

tfce_R2: dimension: dimension [electrodes x time frames]
tfce_Condition_effect_X: dimension [electrodes x time frames]
tfce_Interaction_effect_X: dimension [electrodes x time frames]
tfce_Covariate_effect_X: dimension [electrodes x time frames]
tfce_semi_partial_coef_X.mat: dimension [electrodes x frames].
tfce_con_X.mat: dimension [electrodes x frames].
tfce_ess_X.mat: dimension [electrodes x frames].

In the H0 subfolder, the tfce score maps under H0
tfce_H0_R2: dimension [electrodes x time frames x number of bootstraps]
tfce_H0_Condition_effect_X: dimension [electrodes x time frames x number of bootstraps]
tfce_H0_Interaction_effect_X: dimension [electrodes x time frames x number of bootstraps]
tfce_H0_Covariate_effect_X: dimension [electrodes x time frames x number of bootstraps]
tfce_H0_semi_partial_coef_X.mat: dimension [electrodes x frames x number of bootstraps].
tfce_H0_con_X.mat: dimension [electrodes x frames x number of bootstraps].
tfce_H0_ess_X.mat: dimension [electrodes x frames x number of bootstraps].

From 2nd level analysis using mass univariate approach

One sample t-test
one_sample_ttest_parameter_X.mat: returns the trimmed mean parameter values and associated statistics (dimensions electrodes x frames x 5). The last dimension codes mean values, standard error, degrees of freedom, t and p.
H0_one_sample_ttest_parameter_X.mat: this file constrains the T and p values obtained under H0 for each bootstrap (dimensions electrodes x frames x 2 x nboot)
tfce_one_sample_ttest_parameter_X.mat: tfce scores of the t-test (dimensions electrodes x frames)
H0_tfce_one_sample_ttest_parameter_X.mat: tfce scores of the –test under H0 (dimensions electrodes x frames x nboot)