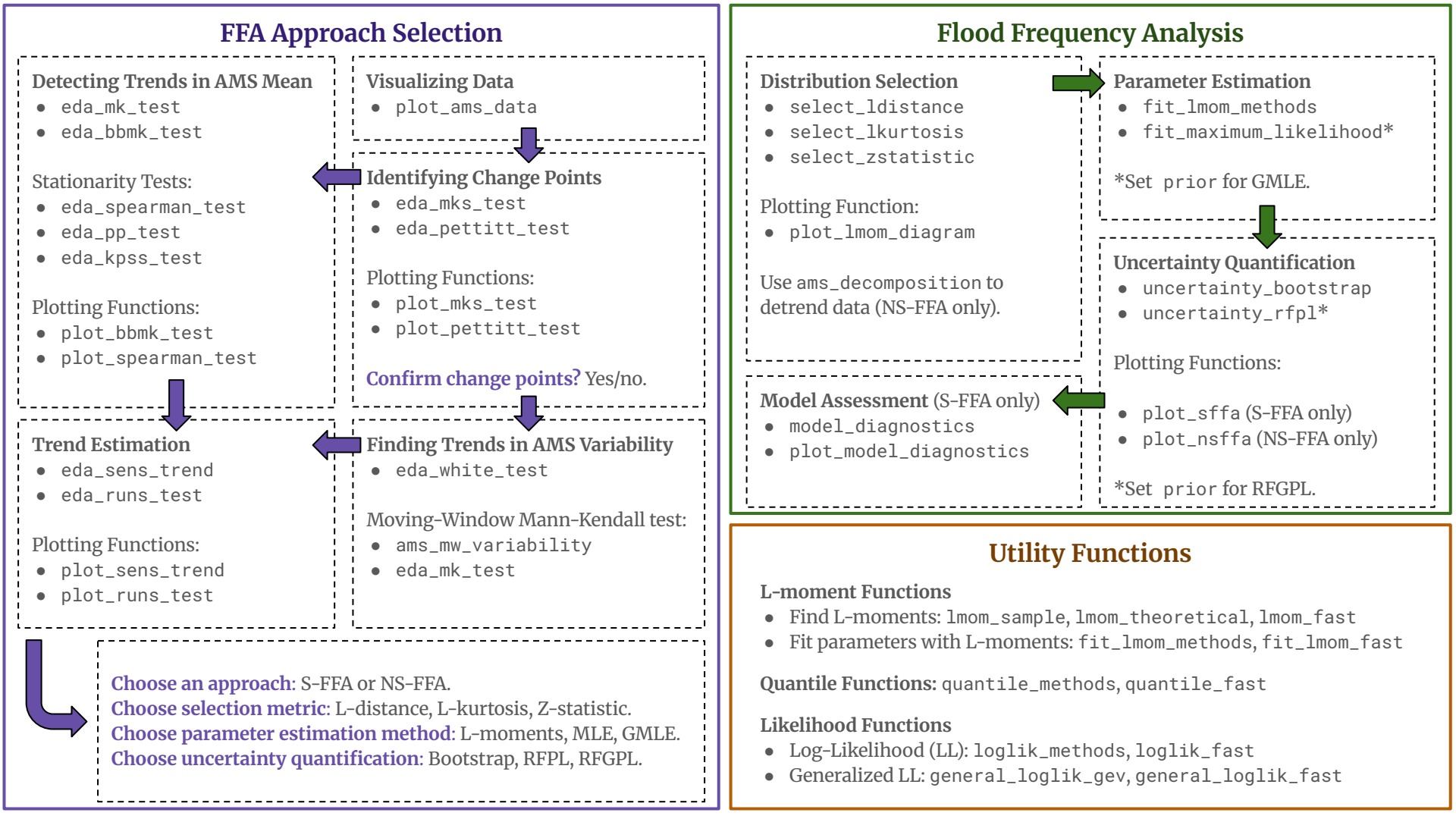
FFA Approach Selection
Detecting Trends in AMS Mean
eda_mk_test
eda_bbmk_test
Stationarity Tests:
eda_spearman_test
eda_pp_test
eda_kpss_test
Plotting Functions:
plot_bbmk_test
plot_spearman_test
Visualizing Data
plot_ams_data
Identifying Change Points
eda_mks_test
eda_pettitt_test
Plotting Functions:
plot_mks_test
plot_pettitt_test
Confirm change points? Yes/no.
Finding Trends in AMS Variability
eda_white_test
Moving-Window Mann-Kendall test:
ams_mw_variability
eda_mk_test
Trend Estimation
eda_sens_trend
eda_runs_test
Plotting Functions:
plot_sens_trend
plot_runs_test
Choose an approach: S-FFA or NS-FFA.
Choose selection metric: L-distance, L-kurtosis, Z-statistic.
Choose parameter estimation method: L-moments, MLE, GMLE.
Choose uncertainty quantification: Bootstrap, RFPL, RFGPL.
Flood Frequency Analysis
Distribution Selection
select_ldistance
select_lkurtosis
select_zstatistic
Plotting Function:
plot_lmom_diagram
Use ams_decomposition to detrend data (NS-FFA only).
Parameter Estimation
fit_lmom_methods
fit_maximum_likelihood*
*Set prior for GMLE.
Uncertainty Quantification
uncertainty_bootstrap
uncertainty_rfpl*
Plotting Functions:
plot_sffa (S-FFA only)
plot_nsffa (NS-FFA only)
*Set prior for RFGPL.
Model Assessment (S-FFA only)
model_diagnostics
plot_model_diagnostics
Utility Functions
L-moment Functions
Find L-moments: lmom_sample, lmom_theoretical, lmom_fast
Fit parameters with L-moments: fit_lmom_methods, fit_lmom_fast
Quantile Functions: quantile_methods, quantile_fast
Likelihood Functions
Log-Likelihood (LL): loglik_methods, loglik_fast
Generalized LL: general_loglik_gev, general_loglik_fast