Preliminary package content/functions:

permute\_mean() – function that uses two means as the statistical values, computes the p-value of them being equal (looks at the difference in mean). Needs a dataset with two groups for computing two means to compare. Here we might be able to use t-test instead, break if data is normally distributed (parametric test can be used).

permute\_median() – function that uses two medians as the statistical values, computes the p-value of them being equal. Needs a dataset with two groups for computing two medians to compare.

permute\_lm() – functions that can calculate different linear models (like direct linear and polynomium) and permute/compare these (also giving a p-value) for the dataset. Can find if a polynomial model is significantly better than a direct linear model. Uses F-value (anova).

plot\_permutation() – function that makes a nice plot of the permutations and the observed value. Here we might need one for each permute-function. We want to make this very nicely with ggplot, so the visualization looks good.

Maybe:

permute\_anova() – function that can take multiple variables and compute p-value for them all being the same. – This could be done for both mean and median

“poor man’s” version of the plot-function, if the package ggplot is not wanted on the computer.

permute\_chi\_sq() – function that calculates a chi-square test and permutes for making a p-value

All permutation-functions needs to have specified number of permutations.

Maybe the permute-functions could be written as one big function.