Ploner : Ploner's 2D local fdr Method

Ploner's local fdr is a complement to the existing Efron's method.
Whereas Efron's method relied on one t/z statistic, Ploner's method considers two dimensions or more.
Only two dimensions are considered here.

powered by R package Ocplus

Available data types

- raw data

Parameters to use

- group indices
- Use truncated data (this is optional)
- nperm
  - number of permutations for establishing the null distribution of the t-statistic
- nr
  - the number of equidistant breaks for the range of each test statistic
- smooth
  - percentage of the available degrees of freedom are used for smoothing the fdr estimate

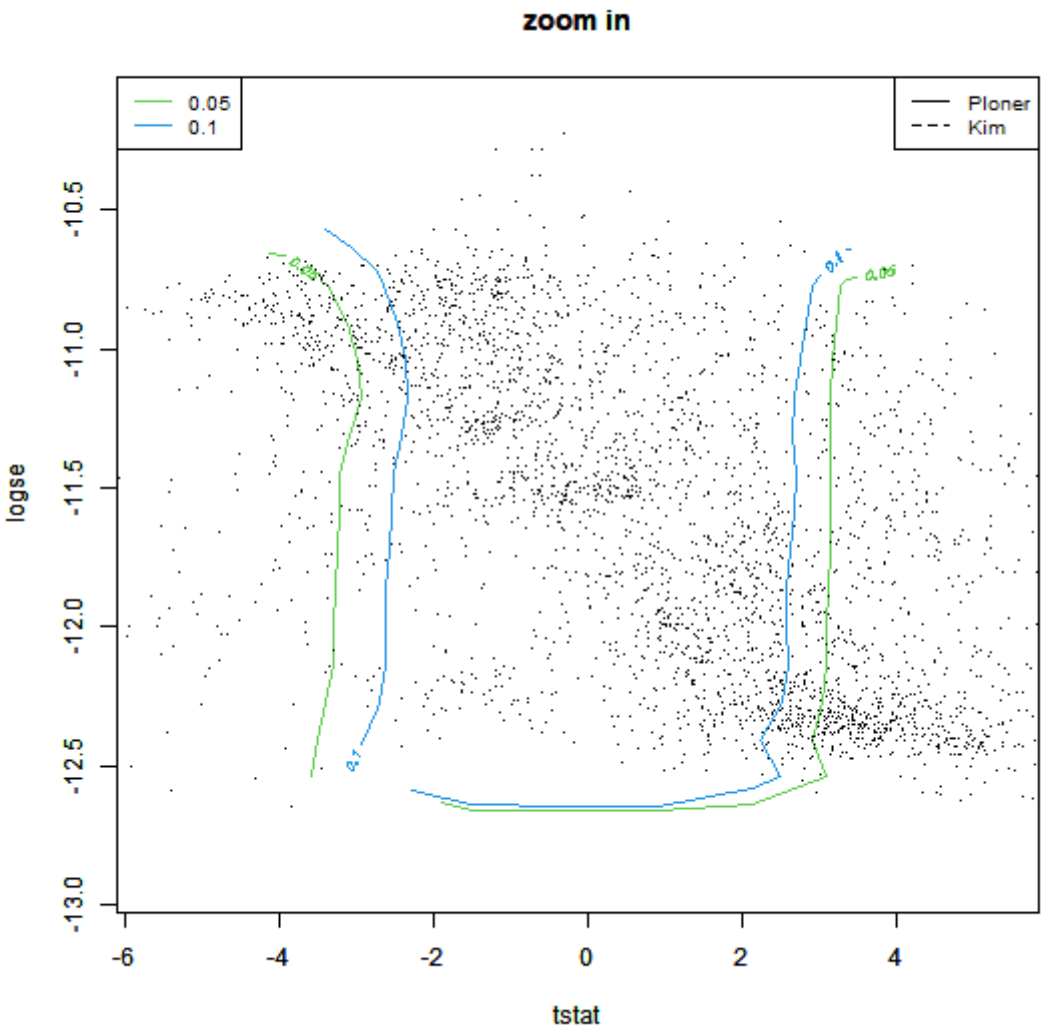
Brief description

Based on Efron's method, Ploner defines a local fdr by extending the dimension.

$$fdr2d(z_1, z_2) = \frac{p_0 f_0(z_1, z_2)}{f(z_1, z_2)}$$

Usually, t statistic and log(se) are used as statistics.

Example



Unlike Efron's method, it is expressed in the form of contour lines. In this case, two q values were used.

Precautions for use

Some use Efron's method for parameter estimation.
If Efron's method doesn't work for the data, Ploner's method may not work either.