

Fast and accurate p-values for SCEPTRE: Preliminary Ideas

Gene

2023-01-03

Exploration of resampling distributions

For convenience, all resampling distributions are stored in the folder **figures/**. There is one figure per dataset and effective sample sizes, each containing ten panels corresponding to ten pairs. Browsing these is illuminating, and I will summarize some of the main findings next.

Bumpy-ness of the resampling distributions

Many of the resampling distributions are bumpy, but interestingly, a given resampling distribution need not be bumpy throughout. Let $\mathcal{B} \subseteq [0, 1]$ be such that, informally, a given resampling distribution is bumpy at quantiles $q \in \mathcal{B}$. For example, Figure @ref(fig:schraivogel-7) shows the resampling distributions for the Schraivogel pairs with effective sample size 7.

(and their tails in particular) have various levels of bumpy-ness. For each tail, we can categorize it as either bumpy or not bumpy.

There are four distinct possibilities:

Distributions can have

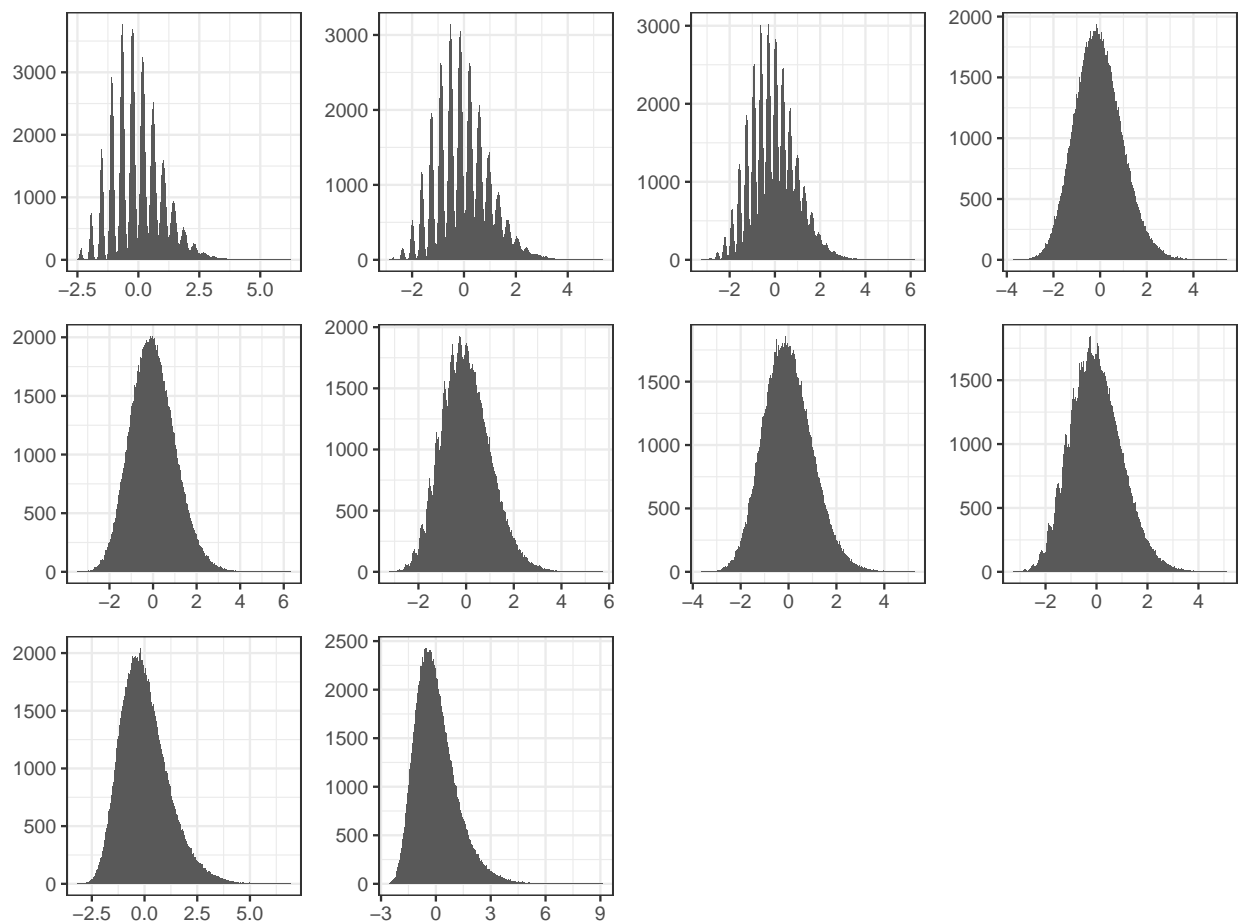


Figure 1: Schraivogel data (effective sample size = 7)