Estimation of the number of clusters with SHIPS (Model M20). Representation of the criterion used to determine the estimated number of clusters $\text{crit}(k) = \text{Gap}(k) - \text{Gap}(\tilde{k}) + s_{\tilde{k}}$. The estimated $K$ is the smallest $k$ such as $\text{crit}(k) \geq 0$.

The black line represents the criterion and the red line the 0 threshold.

The first replicate was used to produce this plot.