

Input: time series X , signal estimate $\tilde{S} = 0$,
 $\Omega^* = \{\}$

Parameters: $L_1, L_2 \in (1, N)$,
 $T_0 \in [0, 1]$, $\delta > 0$

Testing hypothesis of signal absense in $X - \tilde{S}$
using MC-SSA(L_1)

H_0 is not rejected

Output: signal
estimate \tilde{S}

H_0 is rejected

Determining the most significant frequency ω^* ,
 $\Omega^* \leftarrow \Omega^* \cup \{\omega^*\}$

New signal estimate \tilde{S} using SSA(L_2) applied
to series X : leading components with

$T(\cdot; \omega - \delta, \omega + \delta) > T_0, \omega \in \Omega^*$

