

The zip file

[http://www.phonetik.uni-muenchen.de/~jmh/lehre/Rdf/kiel\\_butter1.zip](http://www.phonetik.uni-muenchen.de/~jmh/lehre/Rdf/kiel_butter1.zip)

contains wav files and matching praat TextGrids for several utterances produced by different speakers in the Kiel Corpus of Read Speech.

Test for these utterances in any way you wish, the extent to which zero-crossing-rate can be used to separate the sibilant fricatives [s] and [ʃ].

(In case you need information about the speaker: the code for each speaker is contained in the first three letters of each utterance name).