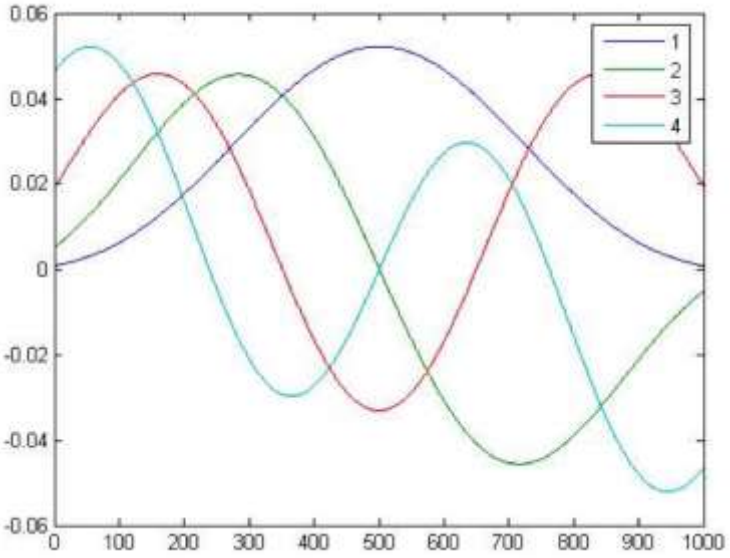
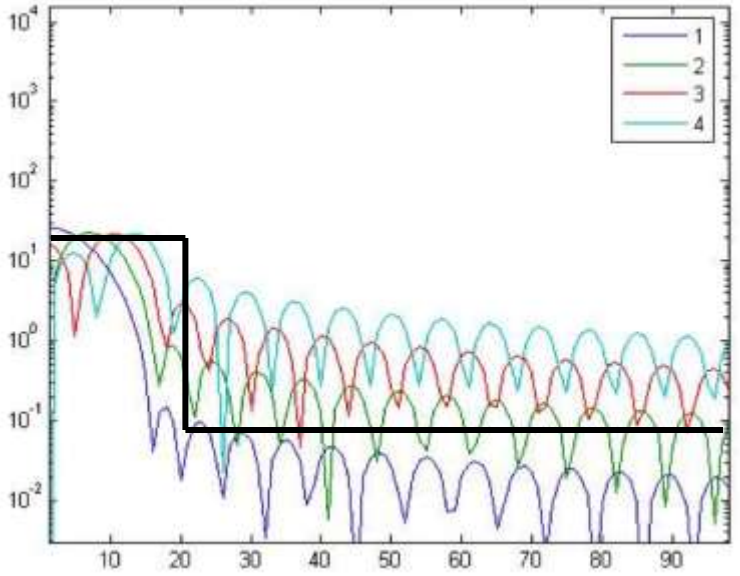
Multitapers

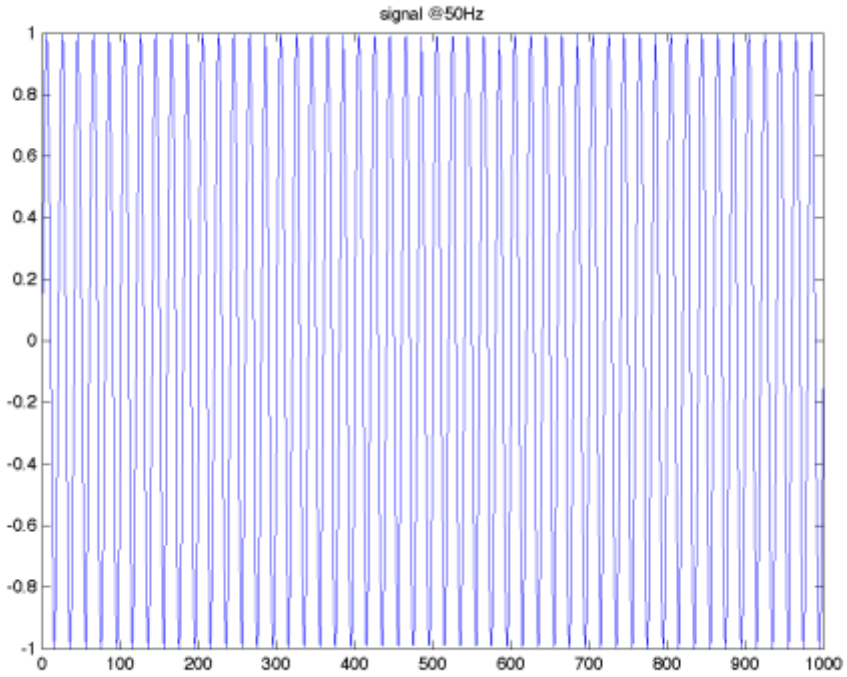
- Make use of more than one taper and combine their properties
- Used for spectral smoothing in the frequency domain
- Shape and number of tapers determines the frequency smoothing
- Instead of “smoothing” one can also say “controlled leakage”

Multitapers

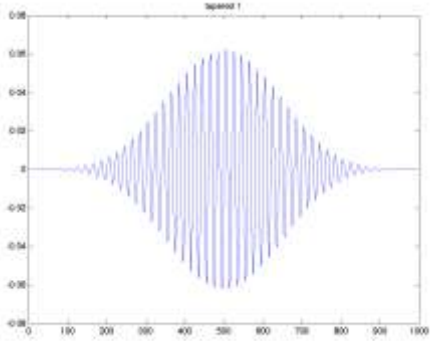


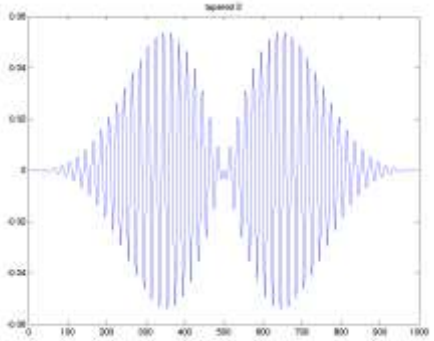


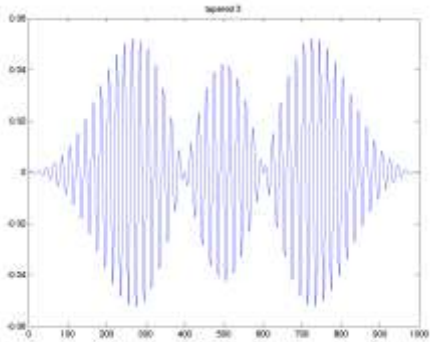
Multitapers demo



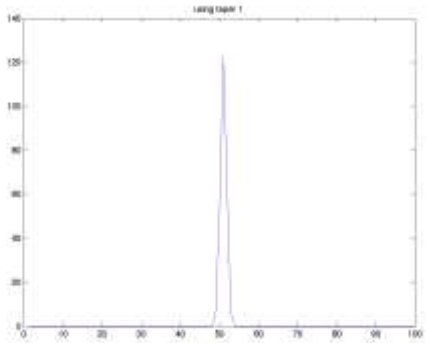
tapered signal

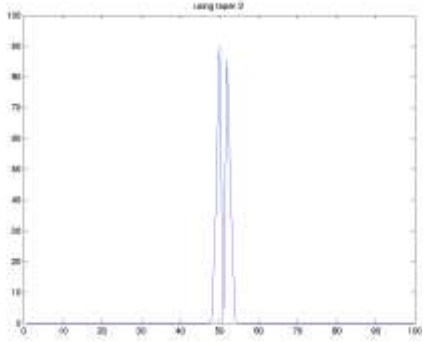


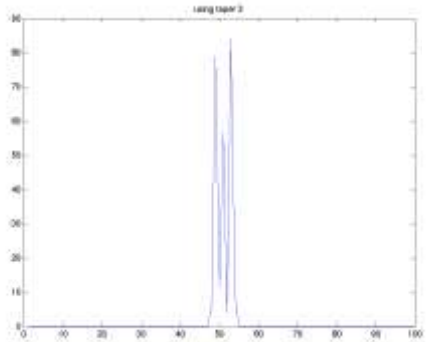




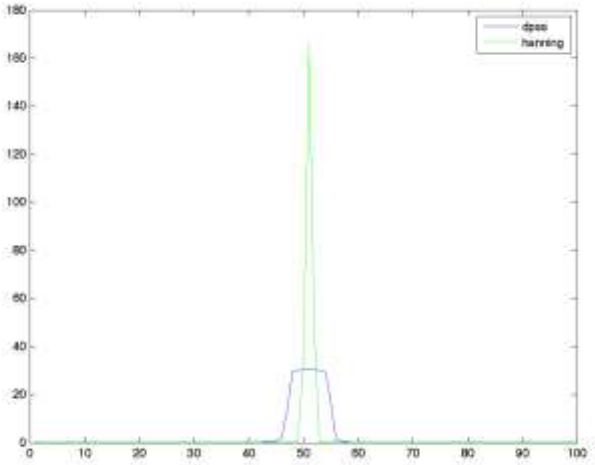
spectral estimate







averaged spectral estimate



Multitapers

- Using ‘multitapers’ allows for a flexible tiling of the time-frequency plane
- For each frequency of interest you can specify the width of the temporal window and amount of spectral smoothing independently of each other
- Multitapers are useful for reliable estimation of high frequency components
- Low frequency components are better estimated using a single (Hanning) taper