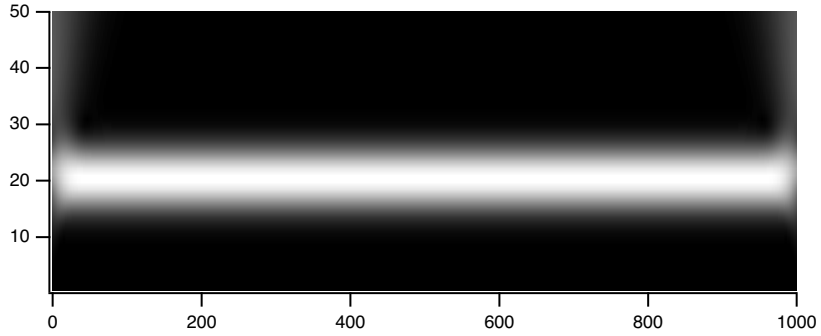
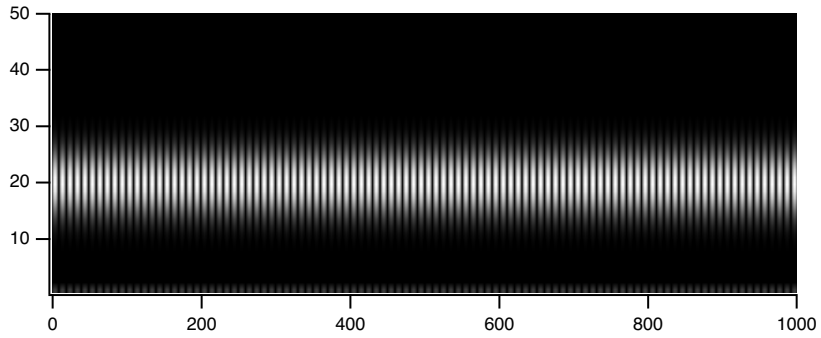
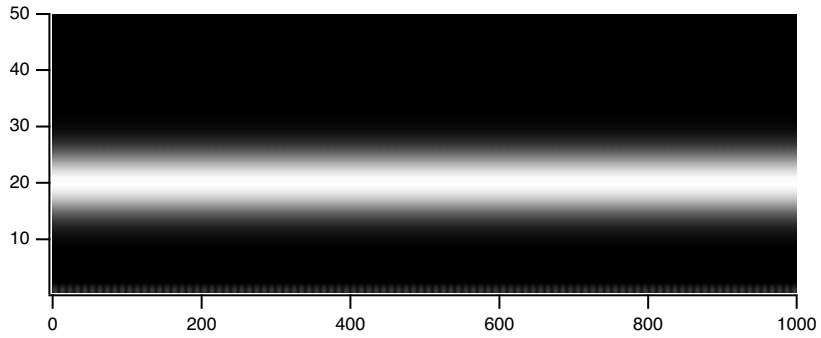



```
CWT /M=1/OUT=4/SMP2=1/R2={1,1,40}/WBI1=Morlet/FSCL /ENDM=2 signal
Rename M_CWT, M_CWT2
Display as "Morlet Direct Sum"; AppendImage M_CWT2
```



Using the complex Morlet wavelet in the direct sum method (/M=1) and displaying the squared magnitude we get:

```
CWT /M=1/OUT=4/SMP2=1/R2={1,1,40}/WBI1=MorletC/FSCL /ENDM=2 signal
Rename M_CWT, M_CWT3
Display as "Complex Morlet Direct Sum"; AppendImage M_CWT3
```



It is apparent that the last image has essentially the same results as the one generated using the FFT approach but in this case the edge effects are completely absent.

Discrete Wavelet Transform

The DWT is similar to the Fourier transform in that it is a decomposition of a signal in terms of a basis set of functions. In Fourier transforms the basis set consists of sines and cosines and the expansion has a single parameter. In wavelet transform the expansion has two parameters and the functions (wavelets) are generated from a single “mother” wavelet using dilation and offsets corresponding to the two parameters.