A note on window averaging with Matlab Codes

Matlab processing was carried out using Matlab version 7.11.1 (R2010b) with service pack 1 on the Sheffield Iceberg cluster http://www.shef.ac.uk/wrgrid/iceberg.

This included ndnanfilter.m available from matlabcentral/fileexchange which is called by the routine winav.m to perform window averaging. This worked very much (factor 10^2) faster than my own pedestrian version wav.m but gave the same results. However it states in the header:

```
%     The program looks for the IMFILTER and PADARRAY functions from the
%       Image Processing Toolbox. If not found, then CONVN is used instead
%       (slower) and pads with zeros or the given value. In this latter
%       case, if border elements are NaNs, the window won't work properly.
```

As the Matlab installation included the Image Processing Toolbox this was never a problem and I never tested the routines on another machine. If the routines fail because of ndnanfilter.m I suggest replacing calls to winav with calls to wav (wav.m is included in the gzipped routines) – however it wil run a lot more slowly.

Both routines use a window parameter nwin which gives a window length 2nwin+1.

For most FBD work I set nwin to 11 and for ScanSAR I used nwin = 2.