47 Program 3dnoise

47.1 Purpose

Estimates noise level in 3D datasets, and optionally set voxels below the noise threshold to zero. This only works on datasets that are stored as shorts, and whose elements are all nonnegative.

47.2 Usage

3dnoise [-blast] [-snr fac] [-nl x] datasets ...

47.3 Options

-blast Set values at or below the cutoff to zero. In 3D+time datasets, a spatial location is set to zero only if a majority of time points fall below the cutoff; in that case all the values at that location are zeroed.

-snr fac Set cutoff to 'fac' times the estimated noise level. Default fac = 2.5. What to use for this depends strongly on your MRI system – I often use 5, but our true SNR is about 100 for EPI.

-nl x Set the noise level to 'x', skipping the estimation procedure.