1 Program 3dpc

Principal Component Analysis of 3D Datasets

1.1 Usage

3dpc [options] dataset dataset ...

Each dataset may have a sub-brick selector list. Otherwise, all sub-bricks from a dataset will be used.

1.2 Options

-dmean = remove the mean from each input brick (across space)

-vmean = remove the mean from each input voxel (across bricks)
[N.B.: -dmean and -vmean are mutually exclusive]
[default: don't remove either mean]

-normalize = L2 normalize each input brick (after mean subtraction)
[default: don't normalize]

-pcsave sss = 'sss' is the number of components to save in the output; it can't be more than the number of input bricks
[default = all of them = number of input bricks]

-prefix pname = Name for output dataset (will be a bucket type); also, the eigen-timeseries will be in 'pname'.1D (all of them) and in 'pnameNN.1D' for eigenvalue #NN individually (NN=00 .. 'sss'-1, corresponding to the brick index in the output dataset)
[default value of pname = 'pc']

-1ddum ddd = Add 'ddd' dummy lines to the top of each *.1D file. These lines will have the value 999999, and can be used to align the files appropriately.
[default value of ddd = 0]

-verbose = Print progress reports during the computations

-float = Save eigen-bricks as floats
[default = shorts, scaled so that |max|=10000]