DoAll.R

Lampe

Wed Aug 20 07:03:05 2014

```
#Calls all the routines necessary for fitting shear parameters

#==== set working directory and load libraries ====
# #store current directory
# Initial.dir <- getwd()
#
# #change to new directory
CurrentDirectory <- getwd()
# CurrentDirectory <- "~/R/WorkingDirectory/MatFit_v1-2"
# setwd(CurrentDirectory)

# load libraries
library("minpack.lm")
library("ggplot2")
library("plyr")
library("data.table")
library("pracma")
```

```
## Warning: package 'pracma' was built under R version 3.1.1
```

```
library("binhf")
```

```
## Loading required package: wavethresh
## Loading required package: MASS
## WaveThresh: R wavelet software, release 4.6.6, installed
##
## Copyright Guy Nason and others 1993-2013
##
## Note: nlevels has been renamed to nlevelsWT
##
## Loading required package: adlift
## Loading required package: EbayesThresh
##
##  ********************************************
##  adlift: a package to perform wavelet lifting schemes
##
##  --- Written by Matt Nunes and Marina Knight ---
##    Current package version:  1.3-2  ( 01/11/2012 )
##
##              -+ packaged by MAN +-
##  ********************************************
##
##  adlift 1.3-2 loaded
##
##
## Attaching package: 'adlift'
```

```
##
## The following object is masked from 'package:EbayesThresh':
##
##     postmean.cauchy
##
##
##  ********************************************
##  binhf: Haar-Fisz functions for binomial data
##
##  --- Written by Matt Nunes ---
##    Current package version:  1.0-1  ( 24/04/2014 )
##
##
##  ********************************************
##
##  binhf 1.0-1 loaded
##
##
## Attaching package: 'binhf'
##
## The following objects are masked from 'package:EbayesThresh':
##
##     ebayesthresh.wavelet.wd, negloglik.laplace, wandafromx
##
## The following object is masked from 'package:wavethresh':
##
##     madmad
##
## The following object is masked from 'package:base':
##
##     norm
```

```
library("foreach")
library("iterators")
library("deSolve")
```

```
##
## Attaching package: 'deSolve'
##
## The following object is masked from 'package:pracma':
##
##     rk4
```

```
library("FME")
```

```
## Loading required package: rootSolve
##
## Attaching package: 'rootSolve'
##
## The following objects are masked from 'package:pracma':
##
##     gradient, hessian
##
```

```
## Loading required package: coda
## Loading required package: lattice
##
## Attaching package: 'FME'
##
## The following object is masked from 'package:pracma':
##
##     Norm
```

```
source("Load.R")
```

```
##  chr [1:18] "/Users/Lampe/GrantNo456417/MatParameterFitting/CompiledTestData/C-S_Database/CSV_M_SC/1
## NULL
```

```
source("DefPara.R")
```

```
## [1] "CHECK TEST IMPORT #:" "18"
##      ITEST ICASE TIME [DAY] S.A.MIN S.A.MAX S.A.AVG S.L.MIN S.L.MAX
## 1  12OC891     2     33.751  -3.796  -3.579  -3.702  -3.293 -3.2041
## 2    DCCS1     2      6.196  -6.524  -4.091  -4.961  -1.025 -0.9747
## 3   DCCS10     2     46.949  -9.115  -8.820  -9.008  -5.007 -4.9252
## 4   DCCS15     2      5.924  -5.232  -4.968  -5.010  -1.020 -0.9876
## 5    DCCS3     2     37.096  -6.009  -5.866  -5.980  -2.006 -1.9748
## 6    DCCS4     2     57.022  -7.103  -6.958  -6.993  -3.132 -2.9883
## 7    DCCS5     2     58.831  -8.026  -7.780  -7.989  -4.011 -3.9568
## 8     SC10     2     32.146  -6.199  -5.727  -5.995  -1.038 -0.9610
## 9     SC11     2     16.966  -6.044  -5.543  -5.994  -1.038 -0.9680
## 10    SC1B     2     62.896  -4.187  -3.911  -4.132  -3.473 -3.4140
## 11    SC2A     2     61.923  -4.880  -4.777  -4.827  -3.520 -3.4360
## 12    SC3A     2     61.733  -5.766  -5.467  -5.516  -3.565 -3.4320
## 13    SC4A     2     60.848  -7.699  -7.525  -7.588  -6.928 -6.7470
## 14    SC5A     2     61.339  -9.078  -8.651  -8.970  -6.938 -6.8880
## 15    SC6A     2     67.914 -10.397  -9.534 -10.329  -6.971 -6.8860
## 16    SC7A     2     65.968  -6.645  -6.447  -6.536  -5.203 -5.1440
## 17    SC8A     2     60.767  -9.449  -7.590  -7.952  -5.188 -5.1480
## 18    SC9B     2     60.937  -9.384  -8.139  -9.311  -5.203 -5.1370
##    S.L.AVG S.D.AVG   E.V.MIN E.V.MAX  E.A.MIN E.A.MAX T.AVG FD.MIN FD.MAX
## 1   -3.256  0.4457 -0.174330       0 -0.08441       0 293.0 0.7018 0.8354
## 2   -1.014  3.9473 -0.017568       0 -0.15550       0 297.5 0.9258 0.9422
## 3   -4.999  4.0097 -0.068824       0 -0.09518       0 294.7 0.9170 0.9823
## 4   -1.008  4.0019 -0.033969       0 -0.15064       0 297.9 0.9073 0.9387
## 5   -2.000  3.9803 -0.060718       0 -0.14177       0 297.1 0.9092 0.9661
## 6   -3.003  3.9901 -0.061275       0 -0.13528       0 296.7 0.9312 0.9900
## 7   -4.000  3.9895 -0.069213       0 -0.14917       0 294.8 0.9043 0.9691
## 8   -1.003  4.9916 -0.006195       0 -0.01482       0 298.0 0.8373 0.8425
## 9   -1.025  4.9693 -0.021617       0 -0.04677       0 298.0 0.7813 0.7983
## 10  -3.439  0.6925 -0.243860       0 -0.09874       0 298.0 0.7286 0.9298
## 11  -3.459  1.3683 -0.225030       0 -0.11139       0 298.0 0.7445 0.9324
## 12  -3.454  2.0623 -0.241510       0 -0.13777       0 298.0 0.7291 0.9283
## 13  -6.894  0.6944 -0.222610       0 -0.09474       0 298.0 0.7439 0.9294
## 14  -6.916  2.0549 -0.190630       0 -0.09817       0 298.0 0.8167 0.9883
## 15  -6.912  3.4164 -0.188180       0 -0.12228       0 298.0 0.7874 0.9504
## 16  -5.173  1.3636 -0.227880       0 -0.10278       0 298.0 0.7706 0.9678
```

```
## 17  -5.167  2.7848 -0.216170       0 -0.13914       0 298.0 0.7461 0.9261
## 18  -5.165  4.1463 -0.212080       0 -0.16152       0 298.0 0.7791 0.9631
##    W.AVG   ER.V.MIN  ER.V.MAX   ER.A.MIN  ER.A.MAX
## 1   2.40 -1.064e-06 0.000e+00 -5.177e-07 0.000e+00
## 2   1.66 -1.208e-06 4.225e-09 -1.131e-05 0.000e+00
## 3   1.49 -4.494e-06 7.194e-09 -4.622e-06 7.000e-06
## 4   1.77 -7.282e-06 1.038e-09 -1.510e-05 0.000e+00
## 5   1.63 -2.617e-06 0.000e+00 -3.613e-06 0.000e+00
## 6   1.59 -1.827e-06 5.523e-08 -2.597e-06 0.000e+00
## 7   1.55 -2.395e-06 3.822e-09 -2.329e-06 0.000e+00
## 8   0.00 -1.986e-08 0.000e+00 -6.720e-08 0.000e+00
## 9   0.00 -4.492e-06 0.000e+00 -1.512e-05 0.000e+00
## 10  2.34 -1.487e-05 0.000e+00 -7.015e-06 0.000e+00
## 11  2.25 -1.119e-05 0.000e+00 -6.524e-06 0.000e+00
## 12  2.21 -1.406e-05 0.000e+00 -9.305e-06 0.000e+00
## 13  2.27 -2.178e-05 2.778e-09 -1.050e-05 1.389e-09
## 14  2.52 -1.354e-05 0.000e+00 -7.716e-06 0.000e+00
## 15  2.19 -1.220e-05 0.000e+00 -1.060e-05 0.000e+00
## 16  2.33 -1.509e-05 2.556e-08 -8.127e-06 0.000e+00
## 17  2.29 -1.355e-05 6.805e-09 -9.277e-06 0.000e+00
## 18  2.33 -1.649e-05 5.556e-09 -1.308e-05 0.000e+00
```

```
#source("Plot_Input.R")
#source("ShearFit.R")
#source("ValidateSC.R")
#source("Plot_Output.R")

# clear workspace
#rm(list = ls())
```