White Reality Check Guide

Example tests:

**Scenario 1**: *We have many Trading strategies*

*and we want to see whether we have acquired a trading strategy*

*that has an average return higher than zero.*

**Data** : *We have a matrix 'R' of returns where each column stand for a trading strategy*

*and each row stands for the period (time ). So R(i,j) is Return in period 'i' by model 'j'*

**Note:** *A return of -100% is represented by a value of -1 , -10% = -0.10 , etc.*

*To test with 500 simulations and display 'on' , we type:*

*[pvalue Vlstar Vl] = WhiteRealityCheck( R ,2, 0 , 500 , 1);*

LINKS 4 papers : http://www.ssc.wisc.edu/~bhansen/718/White2000.pdf

http://www.stat.purdue.edu/research/technical\_reports/pdfs/1991/tr91-03.pdf

*If we want to test vs a benchmark model then we simply need the Returns of the benchmark model and use them as input*

*[pvalue Vlstar Vl] = WhiteRealityCheck( R ,2, benchmark , 500 , 1);*

**Scenario 2** : *We have 1000 regression models used to make predictions for 'y'*

*and we want to test whether there is atleast 1 model that outperforms the predictions of a benchmark model ( Random Walk for instance ).*

**Data** : *We have a matrix 'e1'; which contains the residuals of the predictions made by our 1000 models.*

*So ==> e1(3,8) means the residual of the third prediction with model number 8 !*

*We also have a column vector 'e0'; which contains the residuals of the benchmark model ( Random Walk )*

*Now if we want to test by Mean Squared error and 300 simulations and display 'off' , we use ==>*

*[pvalue Vlstar Vl] = WhiteRealityCheck( e1 ,1, e0 , 300 , 0);*

*Now if we want to test by Mean Absolute error and 1000 simulations and display 'on' , we use ==>*

*[pvalue Vlstar Vl] = WhiteRealityCheck( e1 ,3, e0 , 1000 , 0);*

***% This package is FREE of charge and is allowed to be distributed***

***% It was made because have not found a data snooping test for matlab up till date, so I felt there was a need for it***