

In the name of God

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STOCHASTIC PROCESSES

Exercise Set 8

(Due Date: 1401/03/01)

1. Coupling analysis: According to the paper entitled "Visualization of coupling in time series by order recurrence plots", by Groth, Andreas, " Physical Review E 72.4 (2005): 046220, examine the coupling between any pairs of each column in attached file. To this end, for the data set represented by  $s(i)$  make a return data as  $R(i) \equiv \frac{s(i+1)-s(i)}{s(i)}$  and use  $R(i)$  as input data.

Good luck, Movahed

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