

## Home Assignment 4

Three separate time series are represented as columns in the file `data45.txt`.

For each of the series

1. Find the power spectrum,
2. calculate the correlation coefficients,
3. calculate partial correlations (offset 16 should be enough in both cases); plot the results,
4. fit an appropriate AR(p) model; use Akaike if in doubt of the order of the process,
5. assess the noise level,
6. find the “theoretical” power spectrum of the model fitted and compare it with the actual power spectrum.

Have fun,  
PFG