Time Series Analysis 2020

Dates are subject to change

Lectures

Lecture 1: 14 February 2020

Baseline assessment, course overview, Jupyter notebooks

Lecture 2: 17 February 2020

Characterising time series, detrending

Lecture 3: 19 February 2020

Recap of some basic statistics, confidence intervals

Lecture 4: 24 February 2020

Fourier series

Lecture 5: 26 February 2020

Fourier series & coding the DFT

Lecture 6: 2 March 2020

Periodograms, Aliasing & Window functions

Lecture 7: 4 March 2020

Lomb-Scargle & bootstrapping

Lecture 8: 9 March 2020

Non-Fourier methods

Lecture 9: 11 March 2020

Tutorial session on non-Fourier methods

Lecture 10: 29 April 2020

Dynamic power spectrum, wavelets

Lecture 11: 6 May 2020

Change point algorithms & Bayesian methods

Lecture 12: 11 May 2020

Bayesian blocks tutorial session

Lecture 13: 13 May 2020

Gaussian processes (will probably leave out), replace with revision session

Lecture 14: 27 May 2020

Revision , Q&A session

Class Tests

Class Test 1: 4 May 2020

Characterisation of time series, Fourier series, LS, etc

Class Test 2: 8 June 2020

Non-Fourier methods -> end

Assignment due dates

Tutorial 1: 24 February @ 11am

Plotting, statistics and characterisation

Tutorial 2: 9 March @ 11am

Periodograms, bootstrapping, etc

Tutorial 3: 8 May @ 4pm

Non-Fourier methods

Tutorial 4: 1 June 2020

Bayesian blocks ~~& Gaussian processes~~