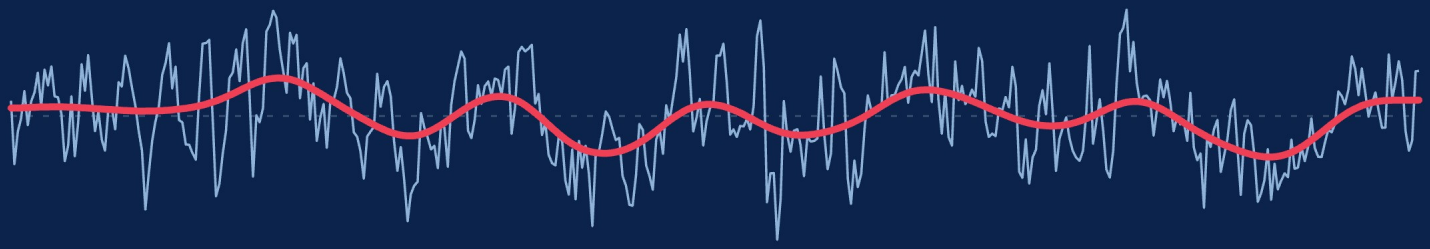
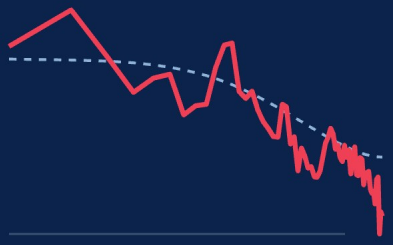
GEOS 585A · SPRING 2027 · 3 UNITS



Applied Time Series Analysis

Time- and frequency-domain methods, hands-on in Python



Bring a time series from your own research. Apply each new method to it over the course of the semester. Finish with new analyses and code you wrote and understand.

TWELVE TOPICS, ONE A WEEK

01 Properties of time series
02 Probability distributions
03 Autocorrelation
04 The spectrum
05 ARMA modeling
06 Trend & nonstationarity
07 Filtering
08 Irregular time series
09 Cross-correlation
10 Coherence
11 Regression, prediction & hindcasting
12 Model validation

FOR STUDENTS IN

Dendrochronology · Geosciences · Hydrology · Atmospheric sciences · Geography · Applied mathematics

...or anyone whose data change through time.

HOW IT WORKS

- Workshop format, Python throughout
- Weekly lightning talks on your own data
- Twelve self-assessed assignments, no exams
- Programming experience helpful, not required

WHEN

Tue & Thu
12:30–1:45 PM
Spring 2027 · 3 units

WHO CAN ENROLL

Graduate students in any UA degree program, or by permission of the instructor

Room: Bannister 424

INSTRUCTOR

Prof. Kevin Anchukaitis
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