Last Class (17 Nov)

1) Generating forecasts
2) Train test splits
3) Simple Forecast methods
4) Naive Approach
5) Seasonal Naive Forecast
6) Drift Method
7) Smoothing Based Methods
8) Simple exponential smoothing

Today's class

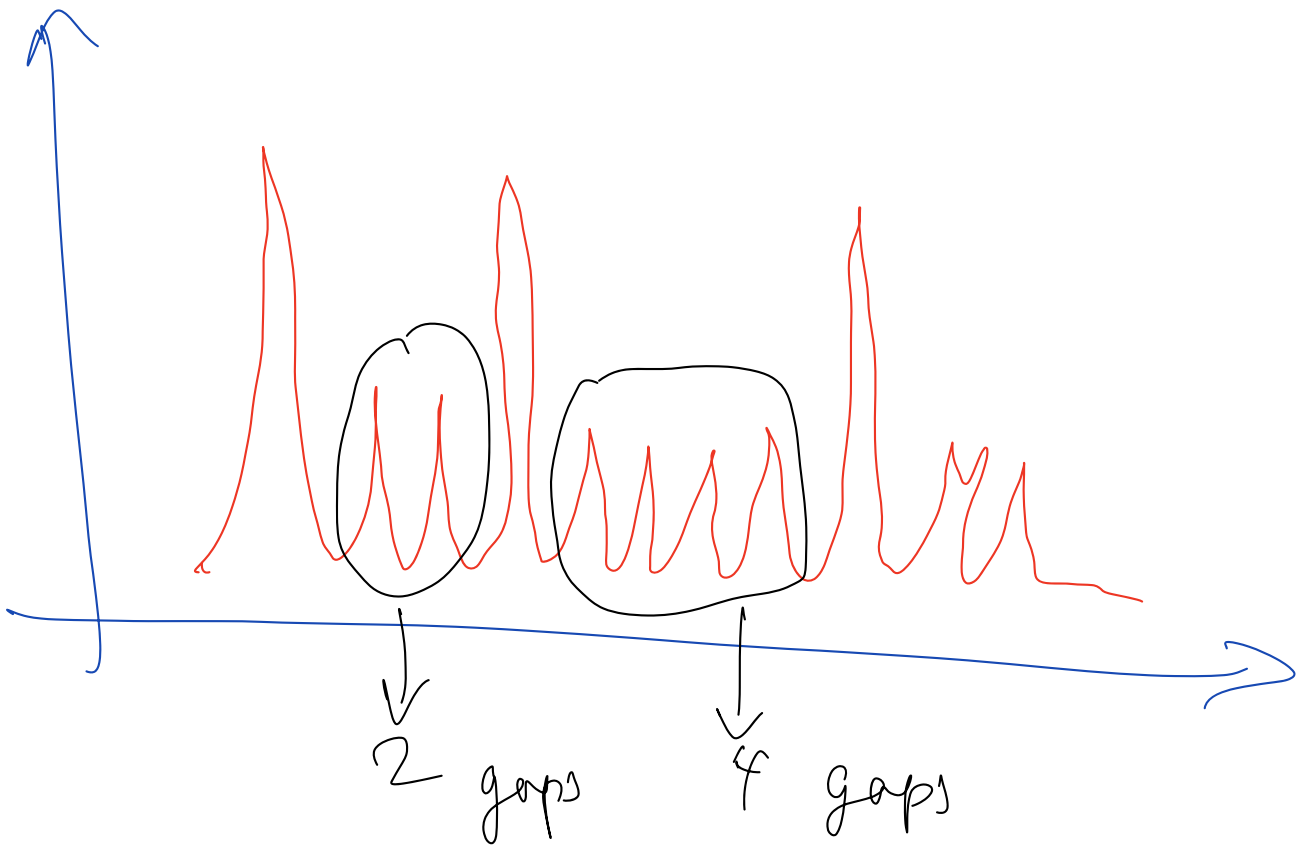
1) Double exponential smoothing
2) Triple exponential smoothing
3) Stationarity
4) Acto Correlation
5) Partial Acto Correlation

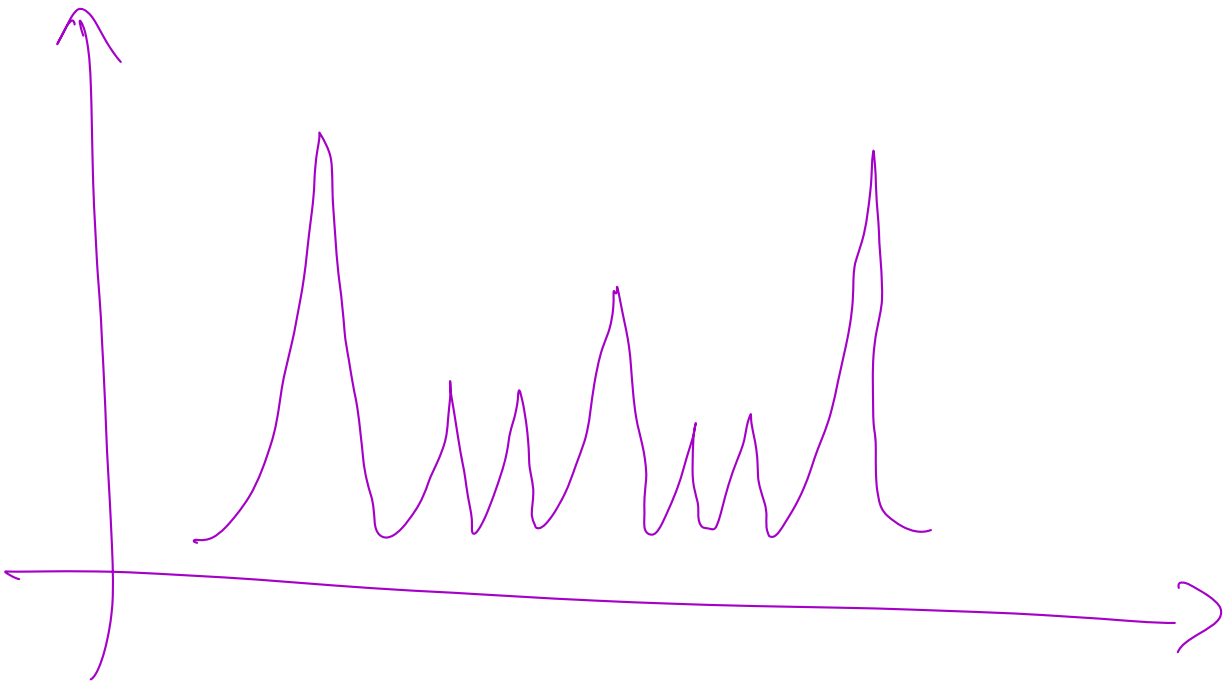
Coding questions → needed (demanded by students)

Seriousness is very dominant → TES

↳ moderate → DES

↳ very less → SES





$p < 0.05 \rightarrow$ reject null hypo

else: accept null hypo

null hypo (H_0) $\rightarrow$ non-stationary signal

If $p < 0.05$

↳ reject the hypo that signal is non-stationary

↳ accepting if is stationary

$y = mx + c$

linear trend : $\text{trend} = \boxed{m}x + c$

(y)

y $\quad y(t) \rightarrow$ original signal

$y(t+T) \rightarrow$ shifted signal (lag by time T)

$i = 1 \quad y(t), y(t+1) \rightarrow$ corr coeff.

2

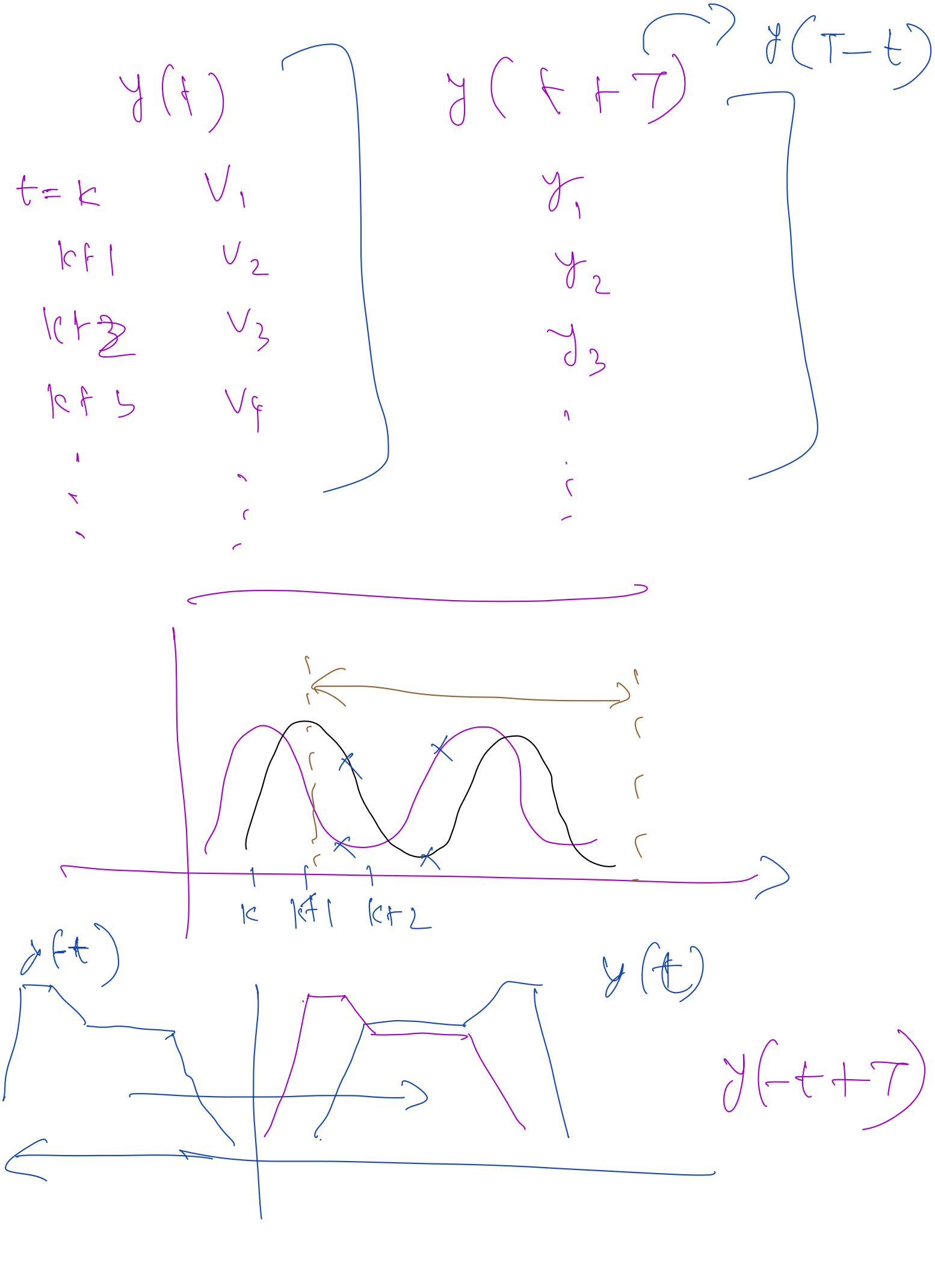
$3 \quad y(t), y(t+2) \rightarrow$ corr coeff.

$\vdots$

12

$13 \quad y(t), y(t+13) \rightarrow$ corr. coeff.

$\max$ (corr.) $\rightarrow \boxed{T = 12}$


y(t)
y(t+T)
y(T-t)
t=k
k+1
k+2
k+3
k+4
v1
v2
v3
v4
y1
y2
y3
k
k+1
k+2
y(t)
y(t)
y(-t+T)