

CW - 2nd Case Study (Extra Support)

samples rates

1	0	$(t-2)$
2	0	$(t-1)$
3	0	(t) → current position
4	X	$(t+1)$ target (one step ahead)
5		
6		
7		
8		
9		
10		

"AR" one step ahead forecasting

$$Z(t+1) = f(Z(t), Z(t-1), Z(t-2))$$

Here we have 3 input variables!

Explanation: In order to predict from now (i.e today), the value of tomorrow, I need the current value, the value of yesterday and the value of two days before.

Forecasting (I/O Matrices)

In a "AR" scheme, the one-step-ahead prediction is:

$$y_{t+1} = f(y_t, y_{t-1}, y_{t-2}, \dots, y_{t-m})$$

You need to decide the level of "m".

You need to "transform" the initial one column time series to an I/O matrix, with all requested time-delayed input variables

