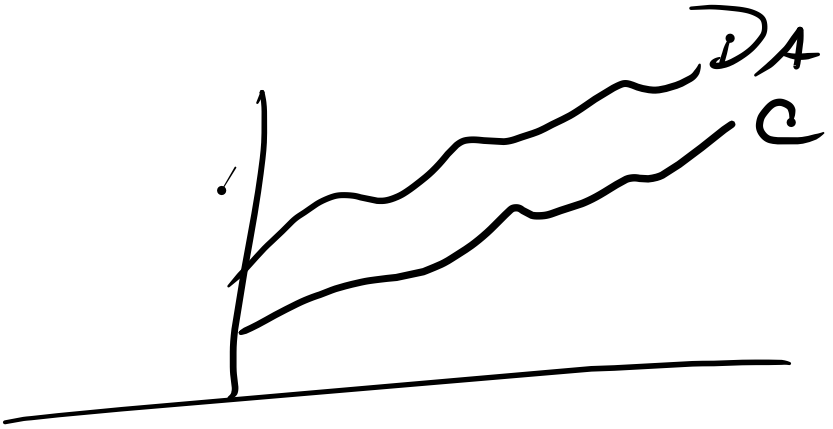
$$Y_t = \phi_0 + \underbrace{\phi_1 Y_{t-1} + \phi_2 \cdot Y_{t-2} + \cdots + \phi_p Y_{t-p}}_{\sum_{i=1}^{p} \phi_i \cdot Y_{t-i} = \sum \phi_i \cdot B^i \cdot Y_t}$$

$$= Y_t \cdot \underbrace{[\phi_i B^i}_{\phi_p(B)}$$

$$+ c_0 + c_1 \cdot z_{t-1} + c_2 \cdot z_{t-2}$$

$$+ \varepsilon_t$$

$$X_t = A_0$$



$$\begin{pmatrix} y_t \\ z_t \end{pmatrix} = \begin{pmatrix} b_{10} \\ s_{20} \end{pmatrix} +$$

$$\alpha_1 \cdot \underbrace{I(1)}_{X_t} + \alpha_2 \underbrace{I(2)}_{Y_t}$$

$$\alpha_1 \cdot X_t + \alpha_2 \cdot \underbrace{\nabla Y_t}_{I(1)}$$