

ARMAX (AUTO REGRESSIVE MOVING AVERAGE WITH EXOGEN)

$$Y(k) = \frac{B}{A} U(k) + \frac{C}{A} E(k) + \frac{K}{A} \sim T_G + T_H$$

$$D=A$$

SAME EVALUATION

ARMA

$$Y(k) = \underbrace{\frac{C}{D}}_H E(k) + \underbrace{\frac{J}{D}}_{T_H}$$

$$G(z^{-1}, \theta) = \phi$$

$$T_G(z^{-1}, \theta) = \phi$$

OE (OUTPUT ERROR)

$$Y(k) = \underbrace{\frac{B}{A}}_G U(k) + \underbrace{\frac{J}{A}}_{T_G} + E(k)$$

$$H=1$$

$$T_H=\phi$$

BJ (BOX-JENKINS)

$$Y(k) = \underbrace{\frac{B}{A}}_G U(k) + \underbrace{\frac{J}{A}}_{T_G} + \underbrace{\frac{C}{D}}_H E(k) + \underbrace{\frac{J}{D}}_{T_H}$$