

SARIMA(p, d, q) \times (P, D, Q) $_S$ Notation

$$\phi(L)\Phi(L^S)(1-L)^d(1-L^S)^DY_t = \theta(L)\Theta(L^S)\varepsilon_t$$

Regular (Non-Seasonal)

p	= AR order	(Number of AR lags)
d	= Differencing	(Regular differences)
q	= MA order	(Number of MA lags)

Seasonal

P	= Seasonal AR	(SAR lags at $s, 2s, \dots$)
D	= Seasonal Diff	$((1-L^S)^D)$
Q	= Seasonal MA	(SMA lags at $s, 2s, \dots$)
S	= Period	(Seasonal period)

Example: SARIMA(1, 1, 1) \times (0, 1, 1) $_{12}$

Monthly data with: AR(1), MA(1), one regular diff,
one seasonal diff at lag 12, seasonal MA(1)