Patterns for Modeling ARIMA (p, d, q)

Best match indicates which of the (p, d, q) parameters need to be included and at which size (0, 1, 2) from the ACF & PACF plots \rightarrow show deviations from zero autocorrelation.

Classic Auto-regressive (AR) model: ARIMA ("p", 0, 0)

 $ACF \rightarrow 0$

PACF spikes at lag "p" (i.e. "p" = number of spikes)

Classic Moving-average (MA) model: ARIMA (0, 0, "q")

PACF $\rightarrow 0$

ACF spikes at lag "q" (i.e. "q" = number of spikes)

Mixed (AR) / (MA) model: ARIMA ("p", 0, "q")

 $ACF \rightarrow 0$

PACF \rightarrow 0

Non-stationary model: ARIMA (0, "d", 0)

"d" = number of times you must difference to get stationary