

# ARMA Parameter Estimation Methods

Yule-Walker	Maximum Likelihood	Conditional LS
<p><b>Pros:</b></p> <ul style="list-style-type: none"><li>+ Simple computation</li><li>+ Closed-form solution</li></ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"><li>- AR only</li><li>- Less efficient</li></ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"><li>+ Most efficient</li><li>+ Works for ARMA</li></ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"><li>- Iterative</li><li>- Local optima risk</li></ul>	<p><b>Pros:</b></p> <ul style="list-style-type: none"><li>+ Simple to implement</li><li>+ Fast computation</li></ul> <p><b>Cons:</b></p> <ul style="list-style-type: none"><li>- Biased for small n</li><li>- Ignores initial values</li></ul>

**Recommendation: Use MLE for final estimation,  
Yule-Walker for initial values**