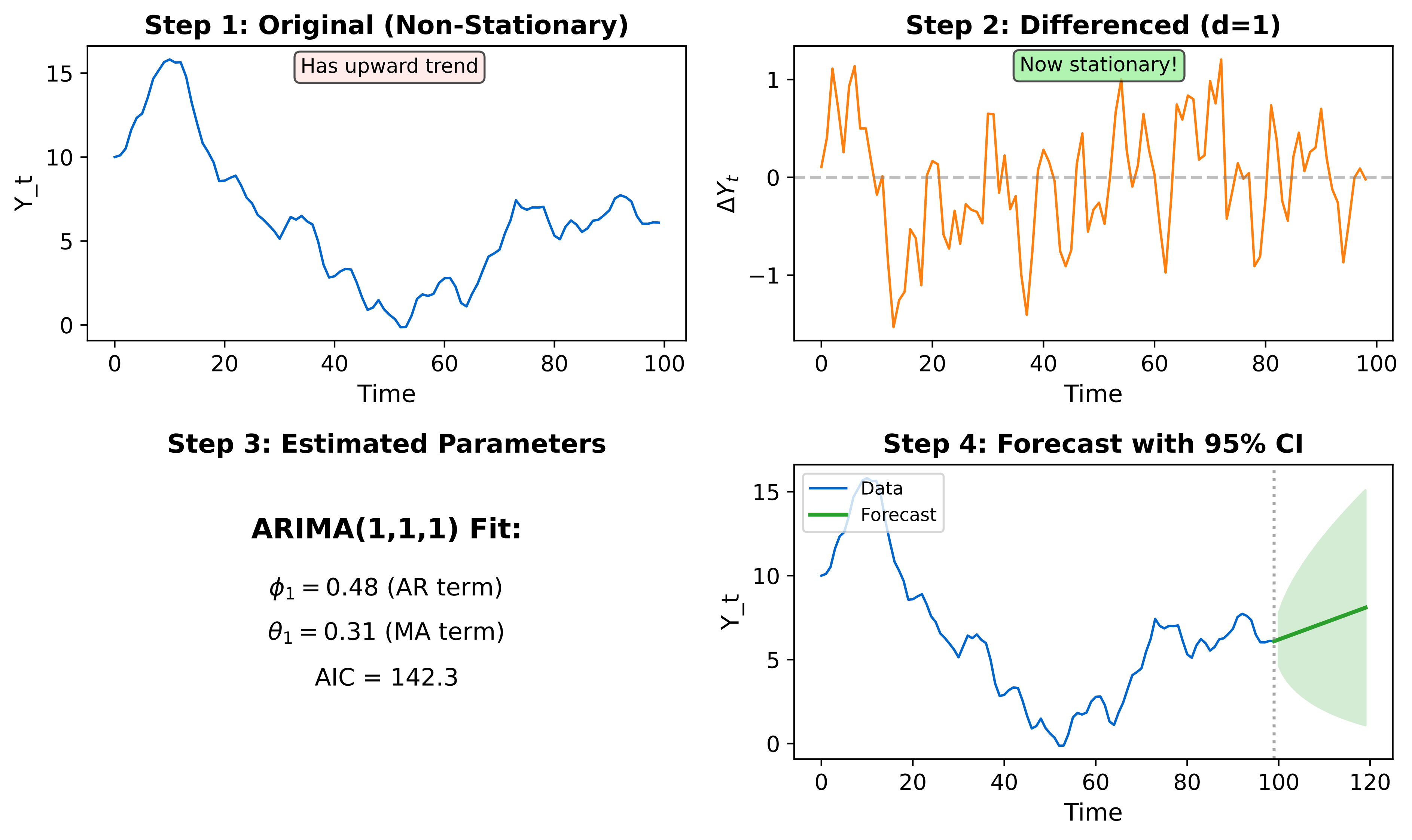

Step 1: Original (Non-Stationary)
Has upward trend
Y_t
Time
0
5
10
15
0
20
40
60
80
100
Step 2: Differenced (d=1)
Now stationary!
$\Delta Y_t$
Time
1
0
−1
0
20
40
60
80
100
Step 3: Estimated Parameters
ARIMA(1,1,1) Fit:
$\phi_1 = 0.48$ (AR term)
$\theta_1 = 0.31$ (MA term)
AIC = 142.3
Step 4: Forecast with 95% CI
Data
Forecast
Y_t
Time
0
5
10
15
0
20
40
60
80
100
120