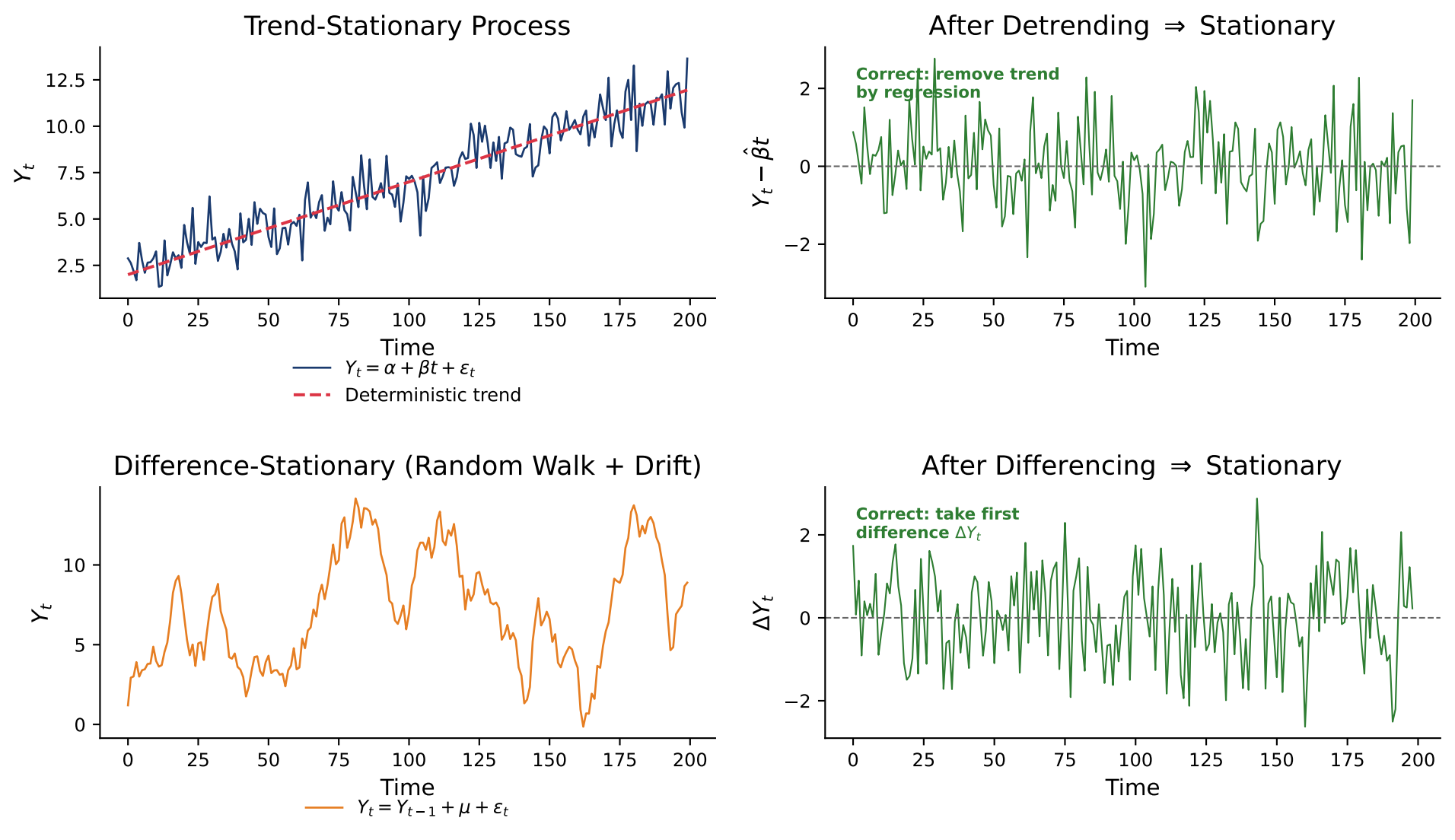
Trend-Stationary Process
Y_t
Time
$Y_t = \alpha + \beta t + \varepsilon_t$
Deterministic trend
After Detrending ⇒ Stationary
Correct: remove trend by regression
$Y_t - \hat{\beta} t$
Time
Difference-Stationary (Random Walk + Drift)
Y_t
Time
$Y_t = Y_{t-1} + \mu + \varepsilon_t$
After Differencing ⇒ Stationary
Correct: take first difference ΔY_t
ΔY_t
Time