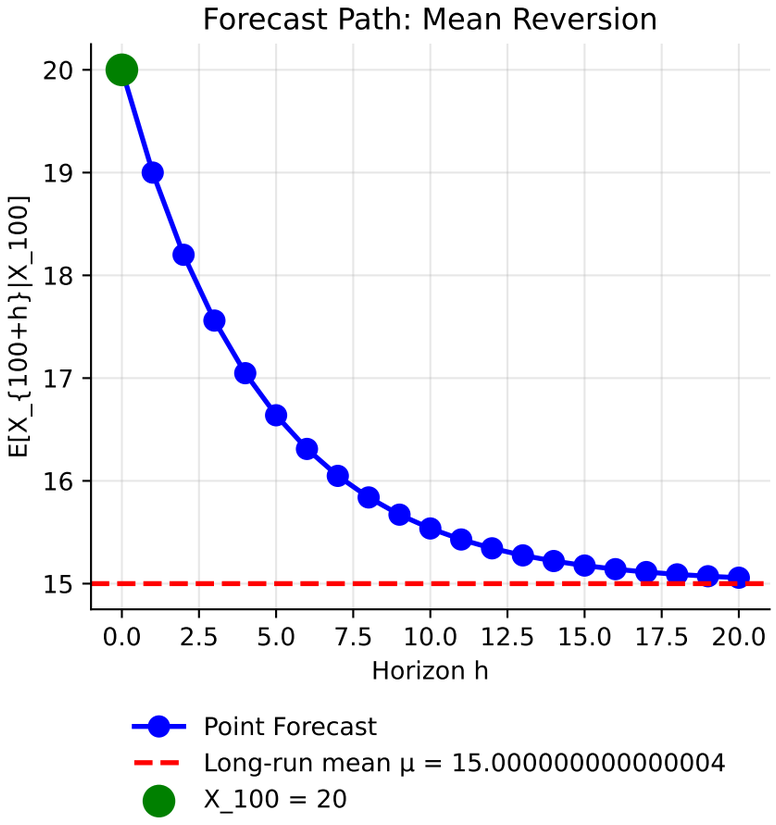

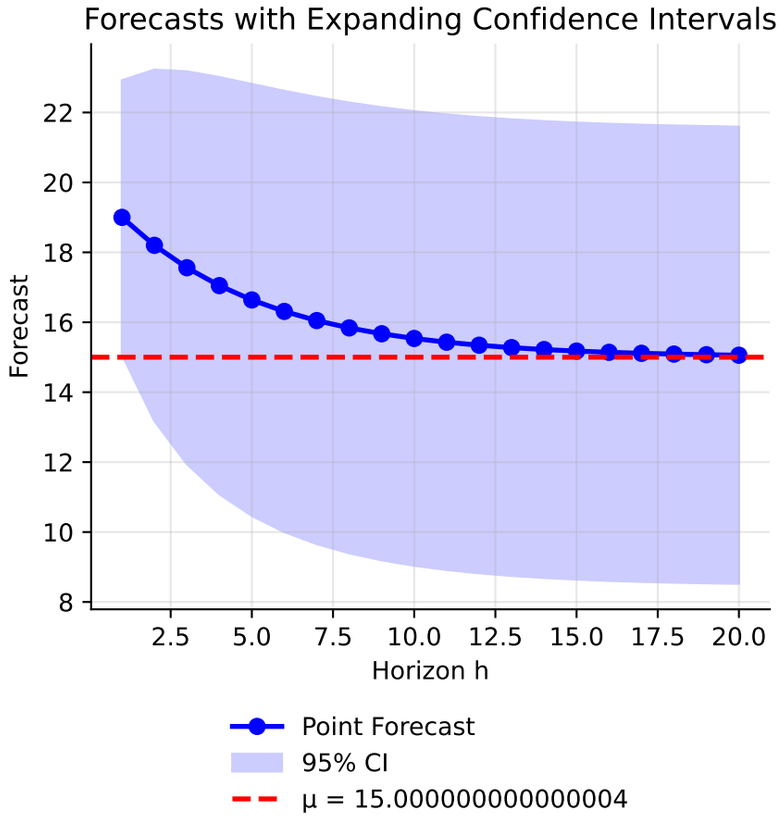


```
AR(1) Forecasting Summary
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Model: X_t = 3 + 0.8X_{t-1} + ε_t
       σ² = 4, X_100 = 20

Unconditional Mean:
  μ = c/(1-φ) = 3/0.19999999999999996 = 15.000000000000004

Forecasts:
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1. One-step ahead:
   X̂_{101|100} = c + φX_100
               = 3 + 0.8×20
               = 19.0

2. Two-step ahead:
   X̂_{102|100} = c + φX̂_{101|100}
               = 3 + 0.8×19.0
               = 18.200000000000003

3. Long-run (h→∞):
   lim X̂_{100+h|100} = μ = 15.000000000000004

4. 95% CI for X̂_{101|100}:
   19.0 ± 1.96×√4
   = [15.08, 22.92]
```