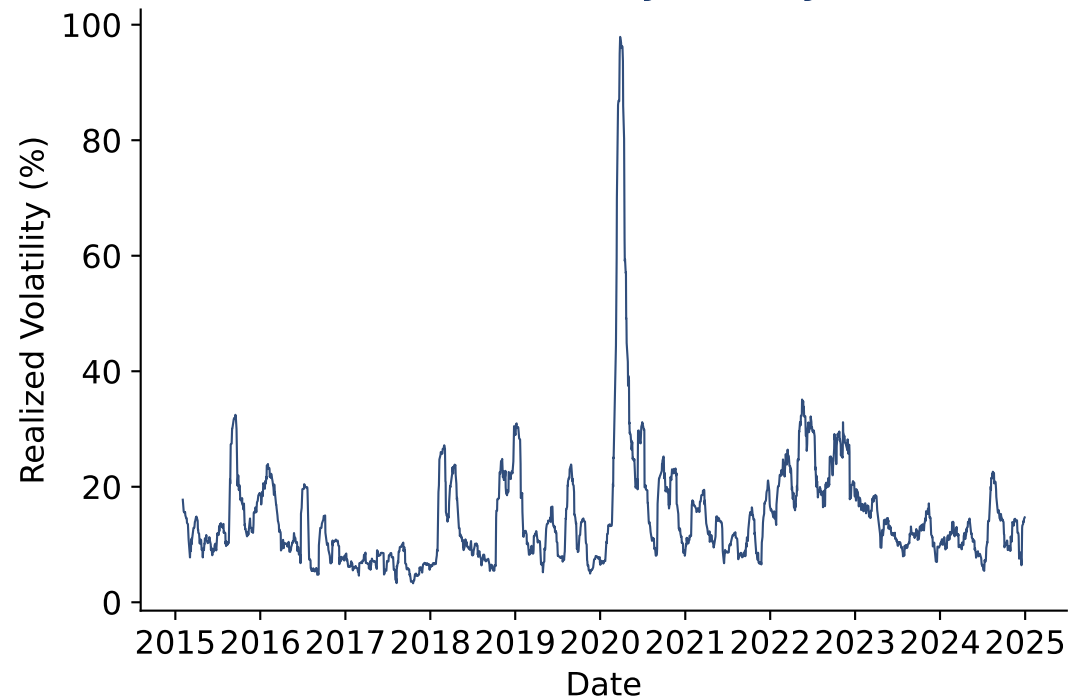
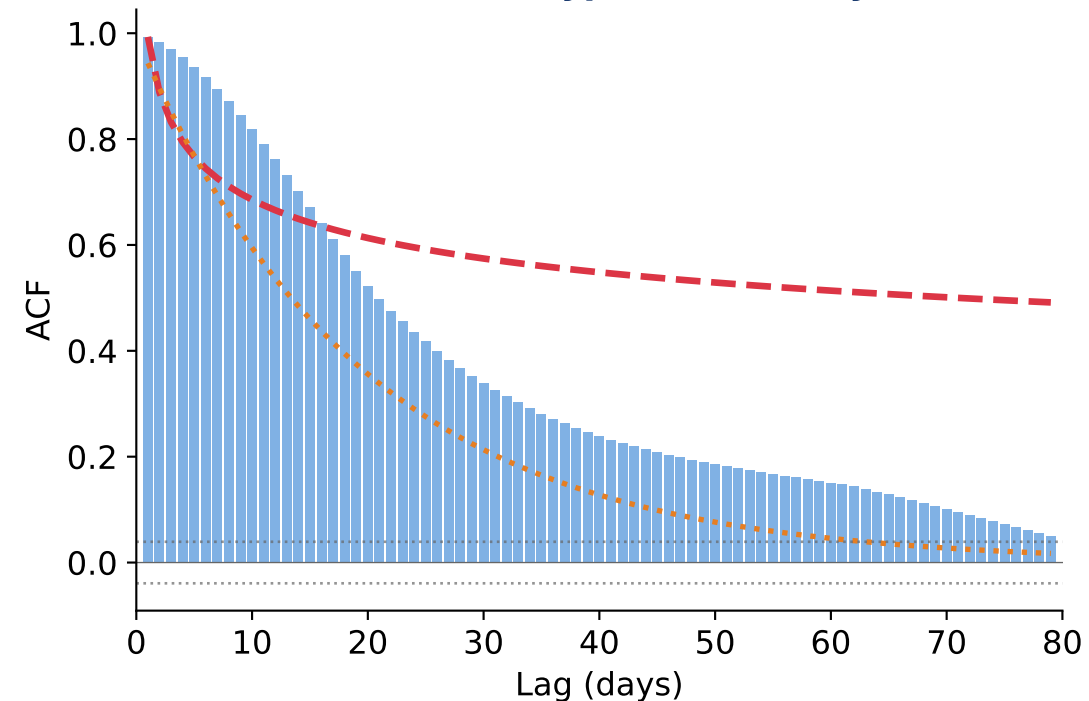


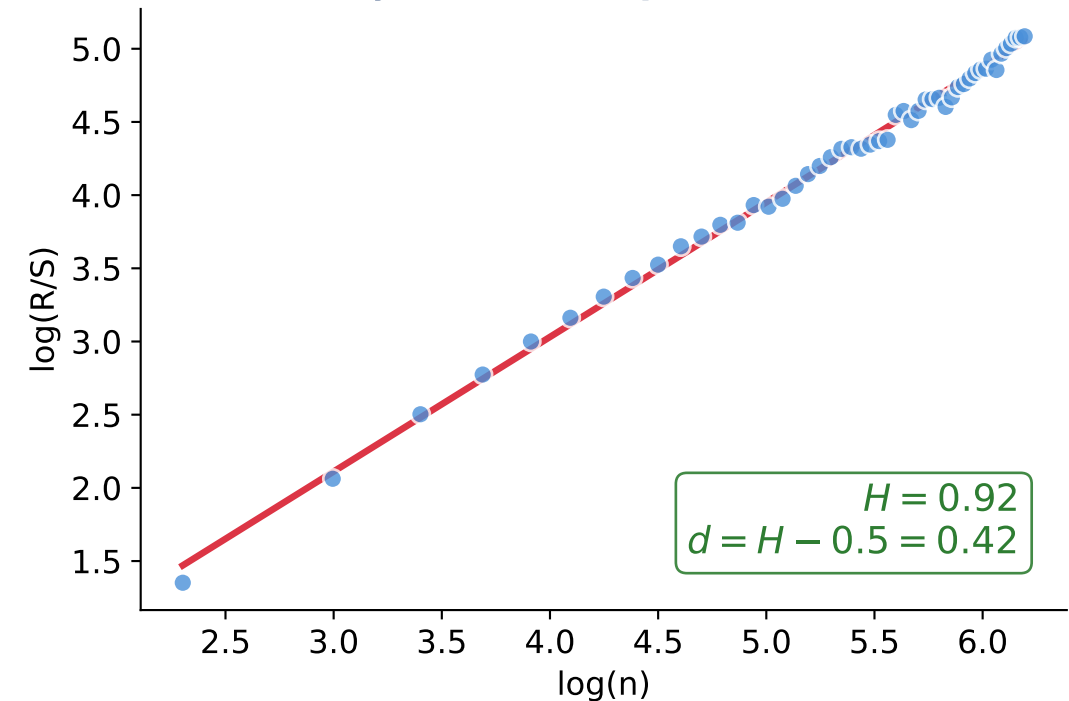
### S&P 500 Realized Volatility (20-day, annualized)



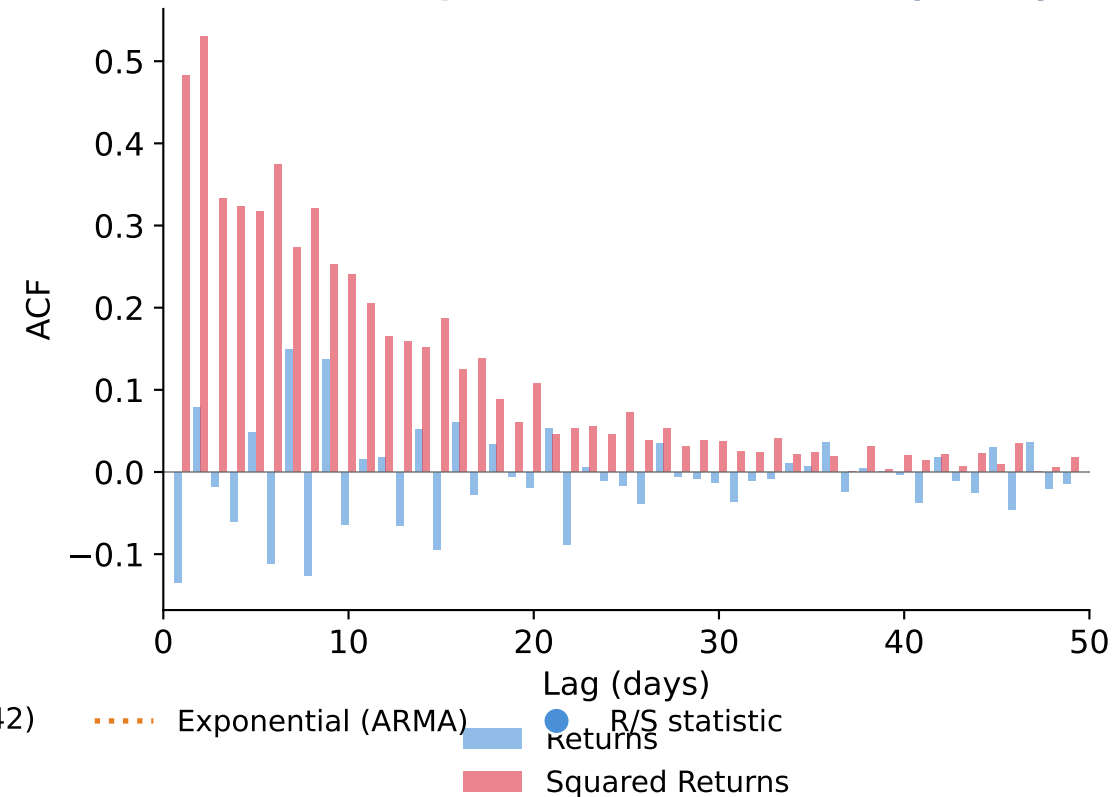
### ACF: Slow Hyperbolic Decay



### R/S Analysis: Hurst Exponent Estimation



### Returns vs Squared Returns (Volatility Proxy)



Sample ACF

Hyperbolic  $k^{2d-1}$  ( $d=0.42$ )

Exponential (ARMA)

R/S statistic

Returns

Squared Returns