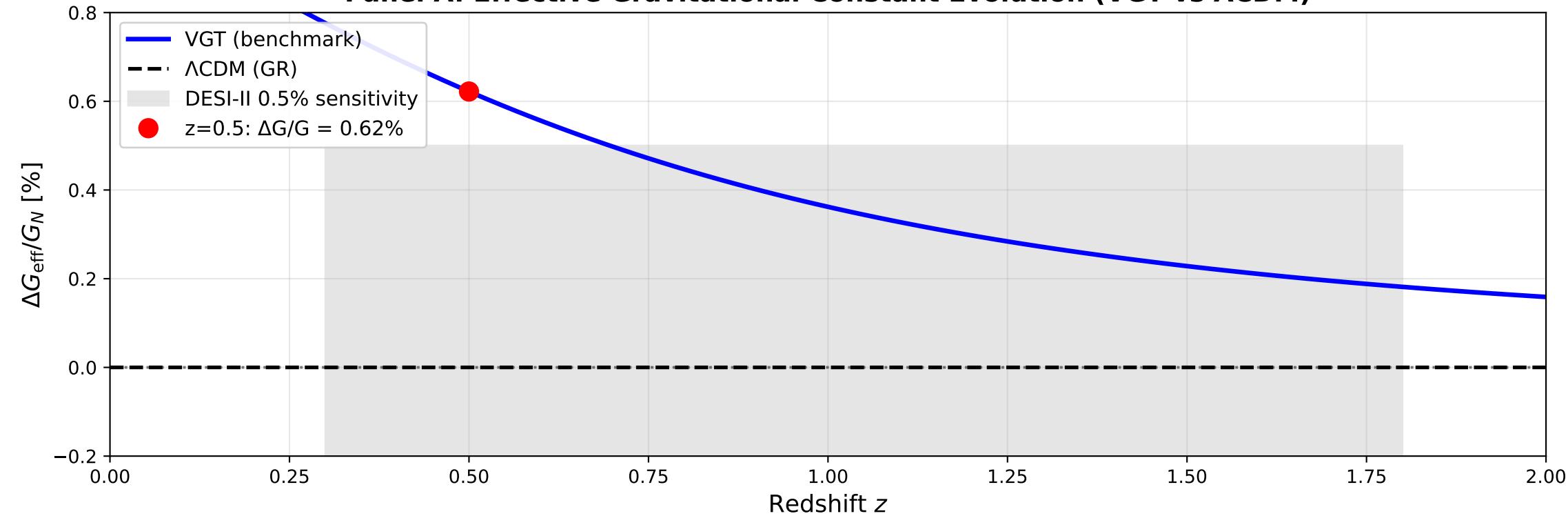
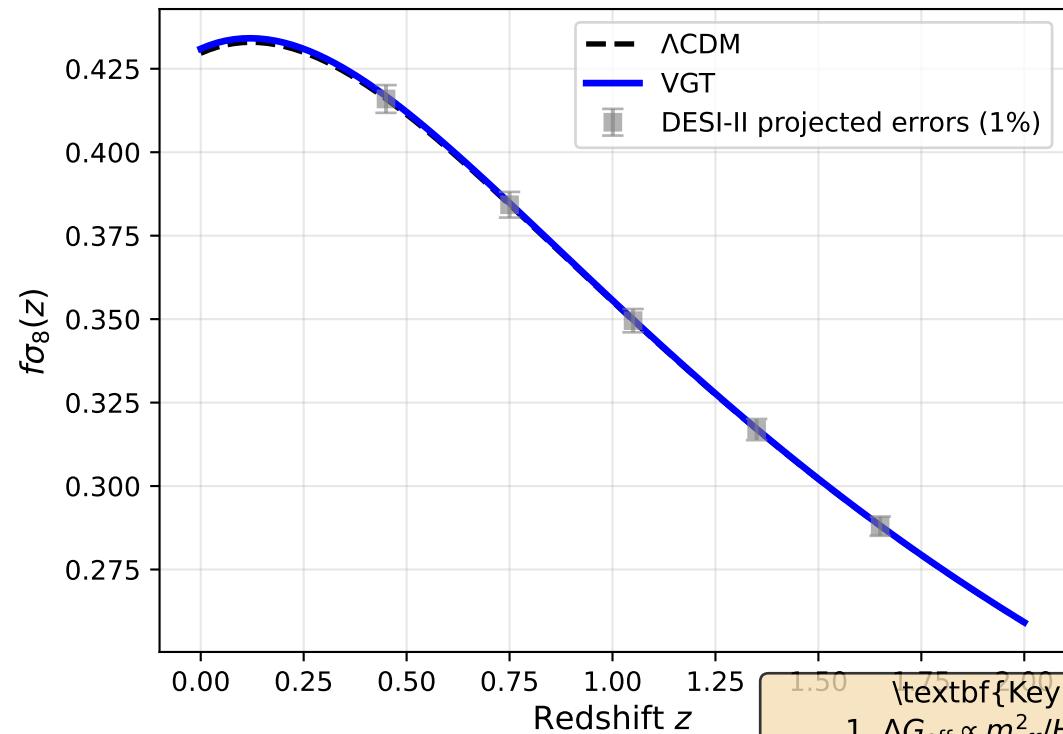


VGT vs Λ CDM: Direct Observational Comparison

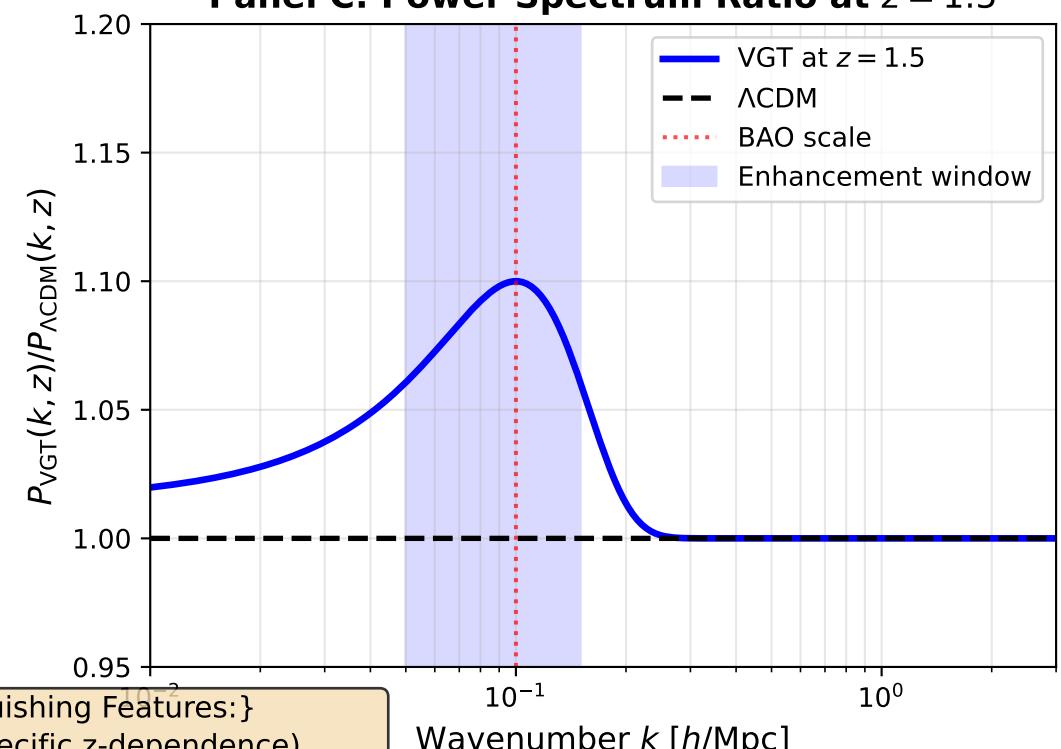
Panel A: Effective Gravitational Constant Evolution (VGT vs Λ CDM)



Panel B: Growth Rate (DESI-II observable)



Panel C: Power Spectrum Ratio at $z = 1.5$



- Key Distinguishing Features:**
- $\Delta G_{\text{eff}} \propto m_{\text{eff}}^2/H^2(z)$ (specific z -dependence)
 - Scale-selective $P(k)$ enhancement at $k_* \sim 0.1 h/\text{Mpc}$
 - Critical redshift $z_c \approx 1.5$ (peak signature)