



Figure 1. Theoretical acceleration vs. redshift. Top: secular redshift drift (Equation (1)). Bottom: apparent acceleration (Equation (4)). The solid lines show the cosmology $H_0 = 72 \text{ km s}^{-1} \text{ Mpc}^{-1}$, $\Omega_\Lambda = 0.73$, and $\Omega_M = 0.27$, the dash-dotted lines show this cosmology with a varying dark energy equation of state, $w(a) = w_0 + w_a(1 - a)$ (Linder 2003), with $w_0 = -1$ and $w_a = \pm 0.5$ (lower and upper curves, respectively), the long-dashed lines show a matter-only universe with $\Omega_M = 0.27$ (open), and the short-dashed lines show a closed matter-only universe ($\Omega_M = 1.0$). Balbi & Quercellini (2007) examine \dot{z} for a panoply of less conventional models. The horizontal dotted lines indicate stationary redshift and velocity (crossing the concordance cosmology line at $z_{\dot{z}=0} = 2.48$), and the vertical dotted lines show the matter-cosmological constant equivalence redshift ($z_{M\Lambda} = 0.39$) and the transition from a decelerating to an accelerating universe ($z_{\ddot{a}=0} = 0.76$).