Validation of OTI: Harmonic Oscillator
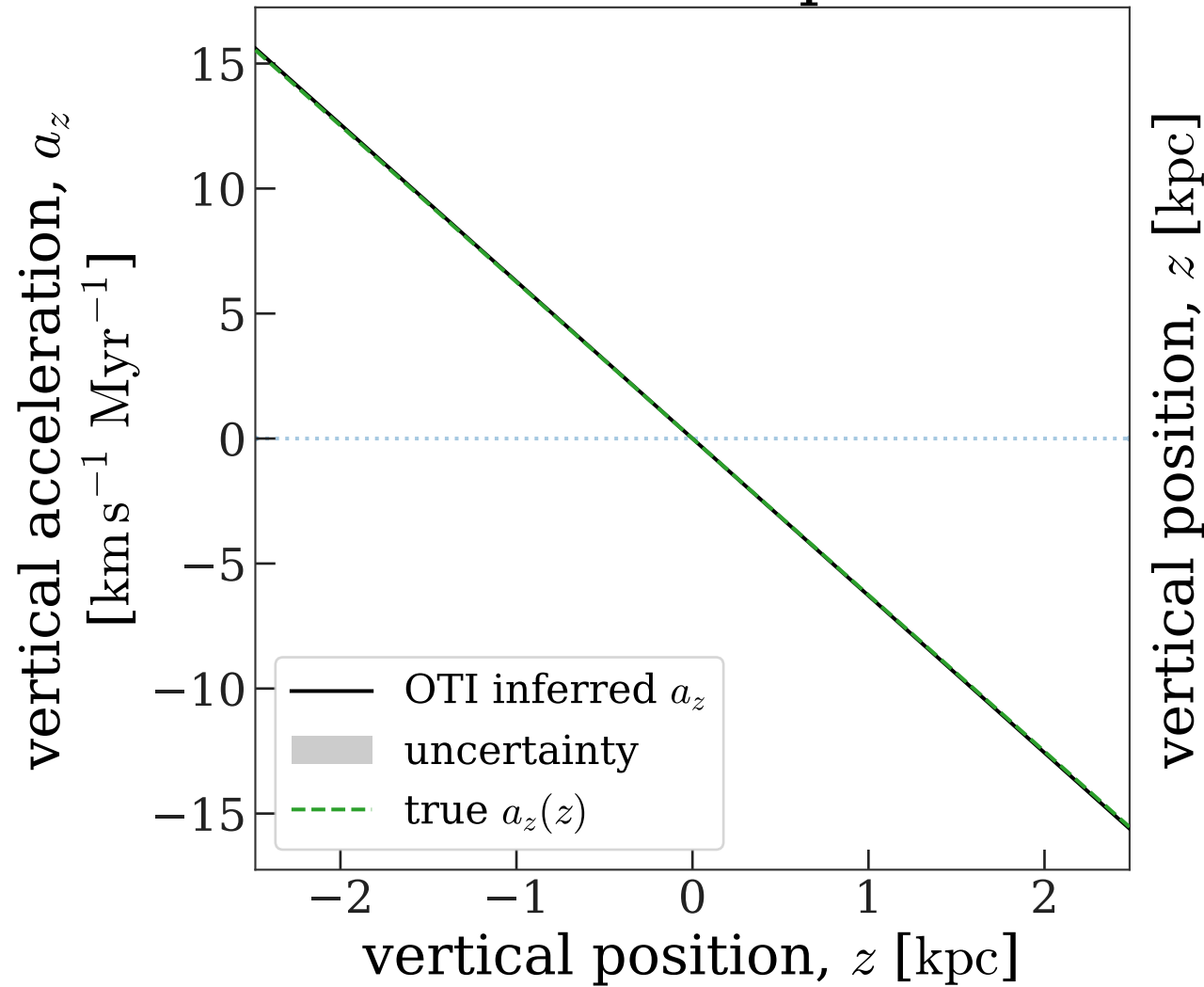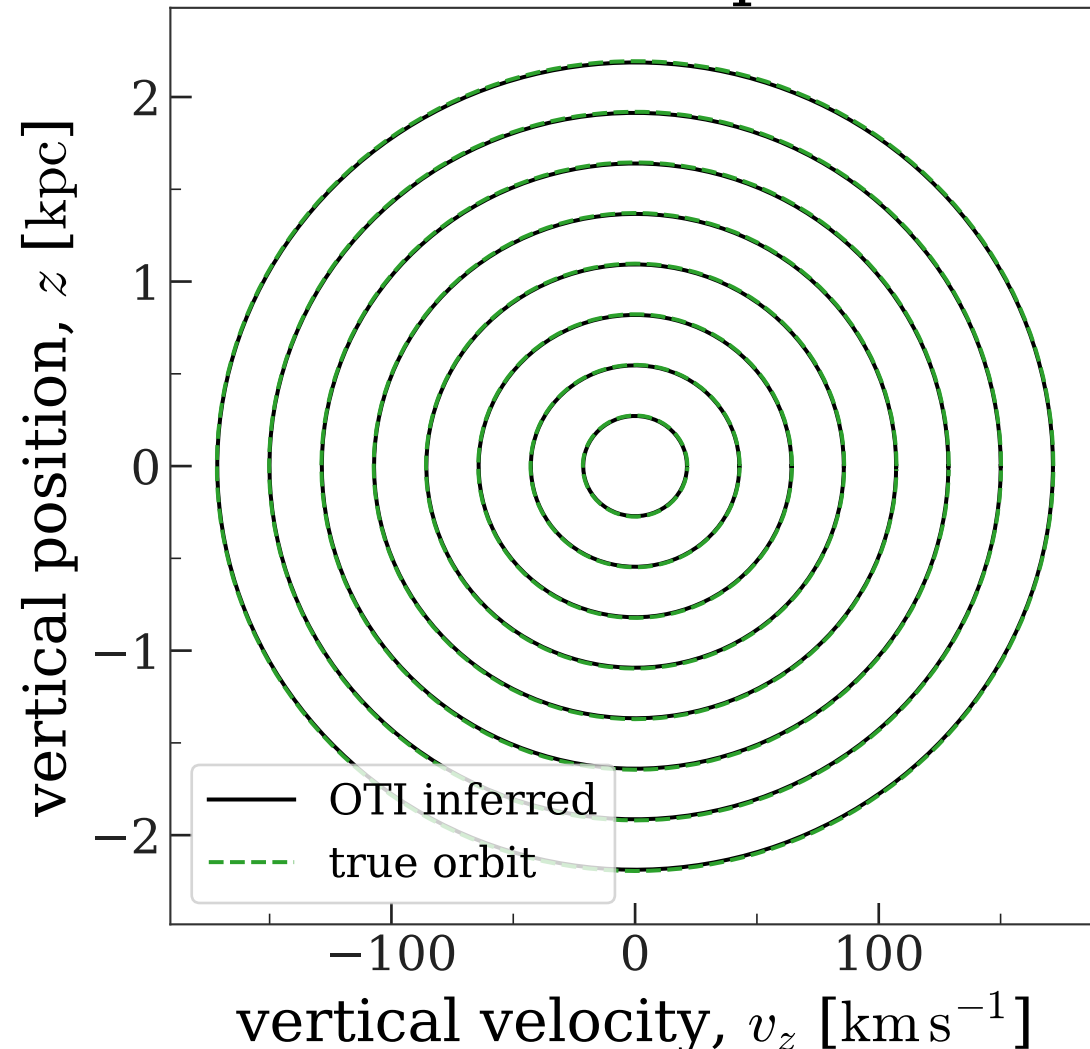
acceleration profile

vertical acceleration, a_z [$\mathrm{km\,s^{-1}\,Myr^{-1}}$]

vertical position, z [kpc]

— OTI inferred a_z
▬ uncertainty
- - - true $a_z(z)$

orbit shapes

vertical position, z [kpc]

vertical velocity, v_z [$\mathrm{km\,s^{-1}}$]

— OTI inferred
- - - true orbit

vertical action J_z

true J_z [$\mathrm{km\,kpc\,s^{-1}}$]

inferred J_z [$\mathrm{km\,kpc\,s^{-1}}$]

· particle J_z values
- - - one-to-one line