Validation of OTI: Quasi-isothermal Disk DF orbit shapes acceleration profile vertical action  $J_z$ [kpc]100 50 vertical OTI inferred  $a_z$ OTI inferred particle  $J_z$  values uncertainty true  $a_z(z)$ one-to-one line true orbit 50 100 vertical position, z [kpc] vertical velocity,  $v_z$  [km s<sup>-1</sup>] inferred  $J_z$  [km kpc s<sup>-1</sup>]