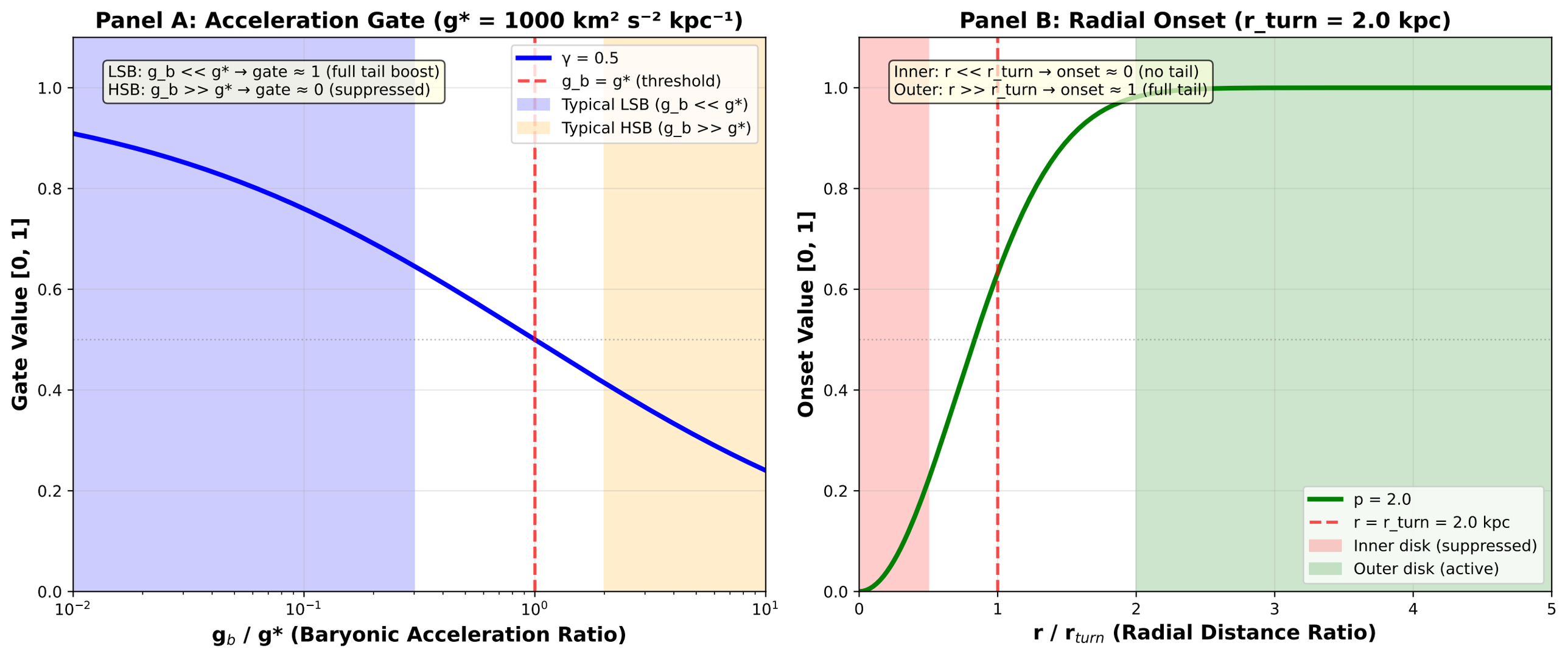
Panel A: Acceleration Gate (g* = 1000 km² s⁻² kpc⁻¹)
LSB: g_b << g* → gate ≈ 1 (full tail boost)
HSB: g_b >> g* → gate ≈ 0 (suppressed)
γ = 0.5
g_b = g* (threshold)
Typical LSB (g_b << g*)
Typical HSB (g_b >> g*)
Gate Value [0, 1]
g_b / g* (Baryonic Acceleration Ratio)
Panel B: Radial Onset (r_turn = 2.0 kpc)
Inner: r << r_turn → onset ≈ 0 (no tail)
Outer: r >> r_turn → onset ≈ 1 (full tail)
p = 2.0
r = r_turn = 2.0 kpc
Inner disk (suppressed)
Outer disk (active)
Onset Value [0, 1]
r / r_turn (Radial Distance Ratio)