OMNISCALE GRAVITY — 2-PAGE EXPLAINER (V4.6)

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CORE IDEA

Use a single weak-field potential $\Phi \equiv c^2\chi$ for both motion and optics. We compute observables with the standard weak-field/1PN line element ($\beta = \gamma = 1$) as a *bookkeeping device on a flat background*—we are not claiming a full non-linear geometry in this release.

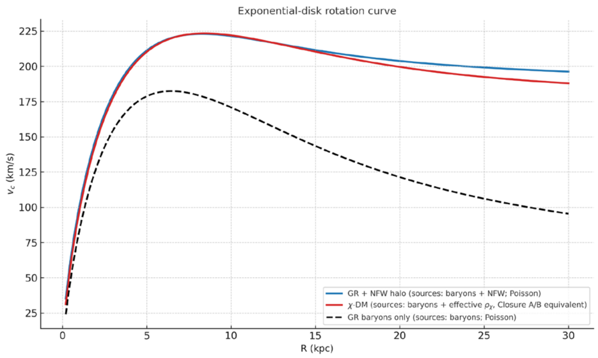
ASSUMPTIONS & GUARANTEES

1. **Map.** $\Phi \equiv c^2\chi$.
2. **Newtonian limit & closure.** Test-particle motion obeys $\ddot{\mathbf{x}} = -\nabla\Phi$. The low-$g$ regime is closed by either **A (QUMOND-style)** $\nabla^2\Phi = \nabla \cdot [\nu(g_b/a_0)\nabla\Phi_b]$, or **B (effective density)** $\nabla^2\Phi = 4\pi G(\rho_b + \rho_\chi)$ with $\rho_\chi = (4\pi G)^{-1}\nabla \cdot [(\nu - 1)\nabla\Phi_b]$. Both guarantee a scalar, curl-free field so the same Φ is valid for disks and lenses.
3. **1PN optics & dynamics.** Isotropic-gauge metric with $\beta = \gamma = 1$ reproduces GR's weak-field tests.
4. **Same Φ.** Lensing/time-delays and mechanics use the same potential.
5. **GW sector (conservative).** $v_{\rm gw} = c$, $+/\times$ only; no scalar dipole.
6. **Frame dragging (status).** Assume GR, $g_{0i} = -4V_i/c^3$; to be derived from one action.
7. **Operationally flat.** Line element used as a bookkeeping device; flat background in this release.

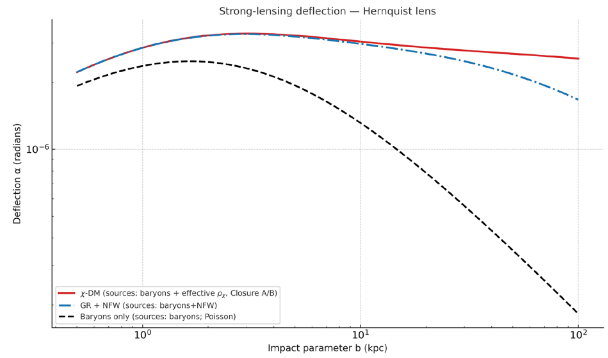
STATUS OF SECTORS

Sector	Now	Next
Scalar χ & Φ	Phenomenological; closure A/B	Derive scalar + metric together
Metric 1PN	$\beta = \gamma = 1$ (GR-safe)	Derive with g_{0i}
Gravitomagnetism g_{0i}	Assume GR ($-4V_i/c^3$)	Predict Lense–Thirring
GWs	$v = c$, $+/\times$ only	Maintain pulsar/GW safety
α (for H_0)	Phenomenological	Fix via linear response of χ

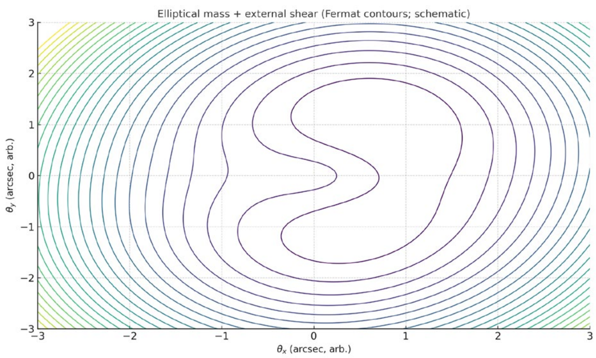
FIGURES



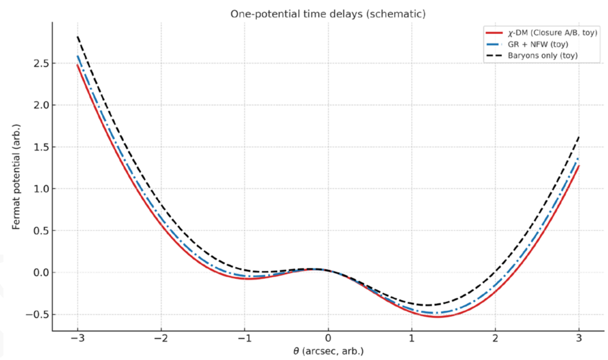
Exponential-disk rotation curve.



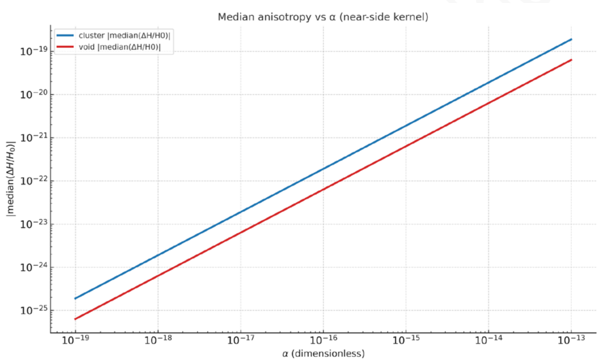
Strong-lensing deflection (Hernquist); same Φ for light and motion.



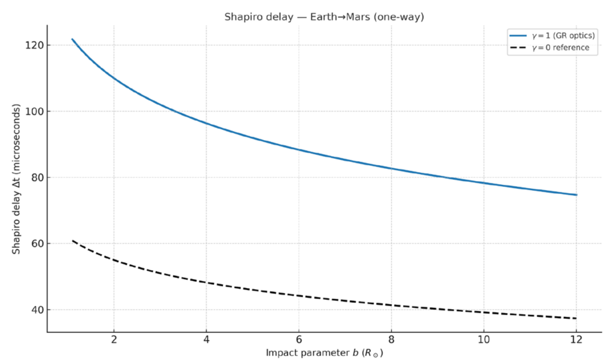
Fermat contours (elliptical mass + external shear)



One-potential time delays (schematic).



$|\mathrm{median}(\Delta H/H_0)|$ vs α (near-side kernel).



Shapiro delay with $\gamma = 1$ (GR optics).