Appendix — Post-Newtonian & Binary-Pulsar Consistency

Scope: summarize why our brane-world cosmology reduces to standard GR in late-time, weak-field tests and in pulsar timing regimes. We assume stabilized radion (m_r above fifth-force bounds) and rho << lambda at late times.

- PPN limit: With rho/lambda -> 0 and negligible projected Weyl term ($E_{\mu\nu} \approx 0$), metric perturbations obey standard 4D Einstein equations.

- PPN parameters: $\gamma \approx 1$ and $\beta \approx 1$ as in GR when extra-dimensional excitations are heavy; preferred-frame and preferred-location parameters vanish.

- Shapiro delay / light deflection: Match GR to current measurement accuracy in Solar-System tests under the same conditions.

- Binary pulsars: Radiation reaction (quadrupole formula) and orbital decay are unchanged at leading order; extra polarizations absent when KK modes are heavy.

- GW speed: Propagation on the brane equals c in our effective regime; constraints from multimessenger events are satisfied.

- Short-range gravity: Radion mass and warping chosen so that deviations at mm–μm scales fall below torsion-balance bounds.

- Cosmology tie-in: Early-time ρ^2 correction is probed by PTA/LISA via the predicted spectral break, not by late-time PPN tests.