Apeiron Version Note and Numerical Erratum

Release: Preprint v1.3
Date: 19 September 2026
Supersedes for current citation: v1.2 (14 September 2026)
Historical versions: retained unchanged.

1. Scope of this update

Version 1.3 adds the closed internal EFT spectrum, local higher-derivative/one-loop block, and bounded minimal UV-matching family. It does not modify the frozen v7.13 numerical classification, single-carrier ontology statement, or black-hole reconversion feasibility classification.

2. Numerical erratum

The previously used intermediate canonical X^2 coefficient

$$2.9131 \times 10^{11}$$

is **withdrawn**. The binding corrected value is

$$c_{X^2}^{(\phi_1)} = 3.91305380277 \times 10^{11} M_{\mathrm{Pl}}^{-4}.$$

Consequently, the old dependent value

$$\Lambda_{\mathrm{unit}}/\Lambda = 1.38688$$

is also withdrawn. The binding corrected tree-unitarity result is

$$\Lambda_{\mathrm{unit}}/\Lambda = 1.28824506.$$

This is an erratum propagation only. No completed physics was recomputed for the publication update.

3. New closed microstructure/UV items

- controlled internal EFT vacuum;
- normalized σ, θ, and Z_2^χ-protected χ modes;
- delimited neighboring tachyonic χ phases;
- perturbative/tree-unitarity control through the nominal EFT scale;
- $C_6^{(\chi)} = -21.0925 M_{\mathrm{Pl}}^{-6}$;
- $\beta_{C_6} = -2.85893108646 \times 10^{12} M_{\mathrm{Pl}}^{-6}$;
- bounded minimal heavy scalar-mediator UV matching;
- quantitative one-parameter family $1 < M_S/\Lambda \lesssim 1.28824506$.

4. Mandatory limitation

The fundamental Apeiron microtheory is **not** claimed to be completely determined. The physical nonlocal response kernel is still required for a possible independent pole/mediator determination of M_S.