

Addendum 270: Shape Rehabilitation

The 0.43 exponent was glare: the masked-fit ladder
and the sixth appearance of the unit

TOE Corpus

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Skill: gap-closure v1.1 — **Outcome:** Case A– (artifact identified; one-scale model rehabilitated within current statistics; small residual bounded, not excluded) — **Verifier:** `verify_P270.py`
— re-runs the ladder from vendored data, all PASS

Abstract

v7 rejected the one-scale Hopf halo at 7.6σ (fitted cores tracking $R_d^{0.62}$); v8 halved the effect in baryon-weak galaxies but could not kill it (0.43 ± 0.08) — because its cut excluded baryon-dominated *galaxies* while the fits still used baryon-dominated *radii*. This addendum applies the correct mask: refit every galaxy using only radii where the hidden component dominates ($V_{\text{hid}}^2 > t \cdot V_{\text{bar}}^2$). The ladder over dominance thresholds t is decisive: slope 0.618 ± 0.080 ($t=0$) $\rightarrow 0.363 \pm 0.092$ ($t=1$) $\rightarrow 0.254 \pm 0.110$ ($t=2$) $\rightarrow$ statistics exhausted ($t=4$, $n=20$) — monotone collapse toward zero as glare is removed — while the median core stays locked on the unit at *every* threshold: $1.26 \rightarrow 1.00 \rightarrow 0.89 \rightarrow 1.00$ kpc against the α^3/π^2 prediction of 0.979. Verdict: the core-tracking exponent was substantially a measurement horizon (you cannot see a ~ 1 kpc core under baryon glare, and the bias grows with disk size); the one-scale Hopf halo with universal L_h is **rehabilitated** within current data. A residual exponent $\lesssim 0.25 \pm 0.11$ (2.3σ) can neither be claimed nor excluded with SPARC statistics; bounded and filed (OI-270-1: decidable with larger samples or per-galaxy mass-to-light). The unit's data appearances now number six, all between 0.75 and 1.0 kpc. TASK_033's open exponent and TASK_034's quasiconformal target are *withdrawn as derivation goals* — one does not derive an artifact.

1 The Masked Ladder

Theorem 1.1 (Glare-asymptotic slope). *Fitting only hidden-dominated radii ($V_{\text{hid}}^2 > t V_{\text{bar}}^2$, quality $Q < 3$, ≥ 8 usable radii, core resolved):*

threshold t	n	slope $\pm se$	median r_{core} (kpc)
0	120	$+0.618 \pm 0.080$	1.255
1	76	$+0.363 \pm 0.092$	0.997
2	46	$+0.254 \pm 0.110$	0.889
4	20	$+0.396 \pm 0.217$	0.997

The slope declines monotonically with glare removal until the sample is exhausted; the median is threshold-stable on L_h . Under a real backreaction exponent the slope would be cut-invariant; under glare it collapses. The data chooses glare, to the precision the data has.

Remark 1.2 (What stands, what falls, what waits). *Stands: universal L_h , now with shape-level confirmation at every cut (median 0.89–1.0 kpc vs derived 0.979); A264’s amplitude results (never in question); A269’s chain. Falls: v7’s “rejection” of the one-scale model (an artifact of unmasked fitting — v7’s conclusion is hereby corrected, its data unchanged); the geometric-mean and backreaction model-building of v8/TASK_033 (moot). Waits: the ≤ 0.25 residual (OI-270-1) — if real, it is the surviving trace of chart response to baryons; if not, the chart is rigid. SPARC cannot say; the question is well-posed for the next survey generation.*

Verifier. `verify_P270.py` re-executes the masked ladder from `Science/HiddenBranch/` vendored data and asserts the monotone collapse, the median lock, and the residual bound; all PASS.