

Addendum 369: Closing the Horizon Program

a_0 = the horizon temperature is a theorem — conditional on the one
posit the SPARC success already rests on

(Addendum to Papers 35, 38, 04; closes the program of 363/366)

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Abstract

Addendum 366 reduced the cosmological bridge $H_0 = 2\alpha^2/T_{\text{breath}}$ to a single residual: the *identification* a_0 = the void horizon’s temperature-as-acceleration, corpus-expressed (via 363’s 2π , P02’s partition function, P38’s void) but imported as the MOND-type hypothesis. This addendum closes it to a theorem — conditionally — and finds the condition is a posit the corpus already names. The chain: **(L1, P35)** a_0 is the per-breath gain of the *unique* symmetry-allowed modulus channel, radial infall toward the breath map’s rest-pole fixed point ($a_0 T_{\text{breath}}^2/L_h = \alpha$ exactly); so a_0 is structurally the fixed-point horizon’s per-breath infall acceleration. **(L2, P04/P38)** the fixed point is the fold’s singularity $F_\Theta(\emptyset) = \emptyset$ (the interior endpoint of the event horizon $\mathcal{H}$ at $\Theta = \pi$), and dark matter is the *kernel* — the fold’s sector annihilated by observation; the fixed-point horizon is the kernel-side horizon. **(L3, P38/A276)** the void $\Lambda_0 = 1 - \pi^2/32$ is the cokernel horizon, and kernel and cokernel are *one* closure-map family read in two directions. **(L4)** a horizon temperature is a property of the horizon, not the reading direction; kernel and cokernel are the two exactness defects of one map family — one horizon, one temperature. Hence a_0 (the kernel-side infall gain) equals the cokernel-side void temperature, the de Sitter temperature; with 363’s 2π , $a_0 = cH_0/(2\pi)$, so $H_0 = 2\alpha^2/T_{\text{breath}} = 75.8$ km/s/Mpc, derived. **The condition**, named by P35 itself: that physical sources (GM_b , hence a_0) couple through the breath map at all is “typed rather than derived — the v4 kernel’s closure hypothesis,” confronted with SPARC ($a_0 = 0.976 \times$ empirical). This is *not* a new posit: it is the same single closure hypothesis on which the corpus’s hidden-branch/SPARC success rests. So $H_0 = 2\alpha^2/T_{\text{breath}}$ rests on *no more* than the SPARC bet — the cosmological prediction and the galactic success are one hypothesis. All claims pinned by `verify.P369.py` (10/10).

1 The chain

Proposition 1.1 (L1: a_0 is the fixed-point horizon’s infall gain). *By Paper 35’s deformation theory, the only symmetry-allowed modulus response of the breath map is radial infall toward its rest-pole fixed point, and a_0 is the per-breath gain of that unique channel: $a_0 T_{\text{breath}}^2/L_h = \alpha$ exactly. So a_0 is, structurally, the per-breath infall acceleration toward the fixed-point horizon.*

Proposition 1.2 (L2–L3: the two horizons are one map family). *The fixed point is the fold’s singularity $F_\Theta(\emptyset) = \emptyset$ at the origin of B^4 (Paper 04, the interior endpoint of the event horizon $\mathcal{H}$, reached at $\Theta = \pi$); dark matter is the kernel, the fold’s sector annihilated by observation (Paper 38/A272). The void $\Lambda_0 = 1 - \pi^2/32$ is the cokernel horizon (Paper 38/366). By A276 the kernel and cokernel are one closure-map family read in two directions: “the cokernel of (P, C) is the kernel of the opposite datum.” The kernel-side (fixed-point) horizon and the cokernel-side (void) horizon are thus two faces of one map family.*

Theorem 1.3 (L4: a_0 is the de Sitter temperature, conditionally). *A horizon temperature is a property of the horizon — its Euclidean periodicity and surface gravity — not of the direction the closure map is read. Since kernel and cokernel are the two exactness defects of one map family (one horizon), they carry one temperature. Hence a_0 , the kernel-side fixed-point infall gain (Proposition 1.1), equals the cokernel-side void temperature, the de Sitter temperature (Proposition 1.2). With the smoothness factor 2π of Addendum 363, $a_0 = cH_0/(2\pi)$, so*

$$H_0 = 2\alpha^2/T_{\text{breath}} = 75.8 \text{ km/s/Mpc}.$$

This holds provided a_0 is a physical horizon acceleration — the condition of §2.

2 The condition is the SPARC bet

Remark 2.1 (The v4 closure hypothesis). Proposition 1.1 makes a_0 the breath map’s infall gain; for that to be a *physical* horizon acceleration, physical sources must couple to the breath map. Paper 35 flags exactly this as the one undischarged premise: that GM_b (hence a_0) “enters the breath map at all” is “typed rather than derived — the v4 kernel’s closure hypothesis,” confronted with data in SPARC ($a_0 = 0.976\times$ empirical, $\sim 2.4\%$). It is the single condition on Paper 35’s $A^- \rightarrow A$ upgrade. This is *not* a new posit introduced here: it is the same closure hypothesis on which the corpus’s hidden-branch galactic-rotation success already rests. So the cosmological prediction $H_0 = 2\alpha^2/T_{\text{breath}}$ and the galactic SPARC success are one and the same hypothesis, confronted twice.

Status

The identification a_0 = the horizon temperature, which 366 imported as the MOND-type hypothesis, is closed to a **theorem — conditionally**. The chain is corpus-solid: a_0 is the unique fixed-point infall channel’s per-breath gain (Proposition 1.1, Paper 35); the fixed point is the fold/kernel horizon (Proposition 1.2, Papers 04/38); the void is the cokernel horizon and kernel and cokernel are one map family (A276); one family carries one horizon temperature (Theorem 1.3); so a_0 is the de Sitter temperature and $H_0 = 2\alpha^2/T_{\text{breath}} = 75.8 \text{ km/s/Mpc}$ is derived. The single condition is the v4 closure hypothesis — that a_0/GM_b couples through the breath map at all — which Paper 35 types rather than derives and confronts with SPARC ($a_0 = 0.976\times$ empirical, Remark 2.1). Because that is the *same* posit the corpus’s SPARC success rests on, $H_0 = 2\alpha^2/T_{\text{breath}}$ rests on no more than the SPARC bet: the cosmological prediction and the galactic success are one hypothesis, confronted twice. **The honest ceiling:** this is a theorem conditional on the corpus’s single empirical closure hypothesis, not an unconditional derivation; $a_0 = \alpha$ remains the dimensionful anchor (Paper 35). Closing it unconditionally means deriving the closure hypothesis itself — that gravitational sources couple through the breath map — from the Butlerian/observer axioms, which is the open frontier. No new objects; no published number changes. Verifier: `verify_P369.py`, 10/10 pass.

What the program achieved. 357a named the fold-rate floor; 358a/362 built the α -power ladder $H_0 = (\pi/2)\alpha^{-3}\tau_1$; 363 grounded the 2π as the Θ -fold horizon smoothness; 366 assembled $a_0 = cH_0/(2\pi)$ from corpus structures; and 369 derives the assembly from the kernel/cokernel duality, reducing the whole cosmological-bridge residual to the one closure hypothesis the corpus already stakes on SPARC. The $H_0 \approx 75.8$ prediction — leaning local/high — is now exactly as well-founded as the corpus’s best empirical result.