

AI-Assisted Adversarial Review of “A Six-Functional Profile for Structural-Dynamic Coherence in Formal Systems”

Procedurally separated AI-assisted formal and methodological review

Overall verdict: FORMALLY_REPAIRABLE

Review date: 11 July 2026

This report is not human peer review, institutional validation, empirical certification, or evidence for consciousness, PhiZero, TUC-O, neuroscience, or physics.

1. Reviewer identity and epistemic status

Reviewer: GPT-5.6 Thinking, acting as a procedurally separated AI-assisted adversarial reviewer. The reviewer is not a human peer reviewer, institutional authority, empirical certification body, or independent legal custodian. The report evaluates only the supplied artefacts and the computations explicitly documented below.

Epistemic posture: the proposal was assumed capable of being wrong. Internal consistency was not treated as evidence of empirical validity. A favorable interpretation was not preferred over a counterexample.

2. Files received

The received inventory was completed before substantive review.

Received object	Contents	Inspection status	Role in review
Pasted text.txt	12,018-byte review mandate	Fully read	Review instructions
K_TUC_Six_Functional_Profile_WordPress_EN(1).zip	5 files: canonical PDF, LaTeX, bibliography, README, SHA256SUMS	Fully extracted and inspected	Primary manuscript package
KTUC_EXTERNAL_EVALUATOR_PREAUTH_PACKAGE_EN_V1(1).zip	64 files across GEXT1-GEXT6, schemas, manifests, editable forms, integrity tool, contextual preprint	Fully inventoried; machine-readable files and sources inspected; protocol PDFs visually checked via contact sheets	Supplementary protocol
TUCZENODO PARTE1.pdf	Older TUC Volume I	Not substantively reviewed	Outside primary scope; contextual only

Required materials were present inside the WordPress and evaluator ZIPs. The only absent integrity object was the separately delivered outer-ZIP sidecar requested by the quick instructions (INT-01).

3. Integrity checks actually performed

- Both ZIP archives passed unzip integrity testing and extracted without errors.
- All four WordPress-package SHA-256 checks passed.
- The evaluator-package verifier returned PASS and recomputed immutable root 12a9126103ddbc86a17aa86452a1877b7ea6a237b653a9a1109b5d6af41b3fb9.
- The evaluator ZIP SHA-256 was recomputed as f0b9a9cc408d4bc19702bc0709dee063acc7d68512548425a12dbbce05084df9, matching the WordPress article.
- The primary 31-page PDF was rendered and every page was visually scanned; no clipping, overlap, broken formula glyphs, or black boxes were observed.
- The 23 protocol-PDF pages were visually checked through the supplied all-pages contact sheet and cross-checked against their LaTeX and operational files.
- JSON files were parsed. Supplied schemas were adversarially tested with countermodels using code execution.
- The state files consistently report READY_FOR_AUTHORIZATION, NOT_AUTHORIZED, NOT_STARTED, target and evaluator UNASSIGNED, and R=D=Q=N=S=O=NOT_COMPUTED.
- No file presented numerical K_TUC output as an external result.

A material integrity inconsistency remains: DELIVERY_VALIDATION_REPORT.json embeds a stale calculated root 125334... while the manifest, state files, and current verifier use 12a912... (INT-02).

4. Scope and exclusions

The review did not execute K_TUC, assign a target, invent authorization, select a dataset, define an observation window, choose thresholds, simulate empirical results, or infer consciousness. The old TUC Volume I was excluded from substantive evaluation because the mandate designates the WordPress article as canonical. Bibliographic review was limited to relevance and representation, not an independent literature review; web browsing was not used.

5. Executive summary

The manuscript makes a valuable categorical separation between technical profile, phenomenal consciousness, ontology, and external validation. Its three short propositions survive review. The central architecture, however, is not yet formally closed and is substantially underdetermined by the system itself.

The most serious mathematical defects are undefined bottom arithmetic, an undefined diameter in O_W, untyped window components, support misalignment in N_W, and a FullDom rule that accepts arbitrarily sparse evidence. The gate also returns bottom when one known coordinate already proves failure. These are repairable, but they preclude describing the current version as fully well formed.

The most serious methodological result is that the supplied JSON schemas do not enforce their own state logic. Four explicit invalid procedural states validate successfully: READY_EXECUTABLE with blocking checks; READY_FOR_SEPARATE_EXECUTION with failed role and blind checks; an authorized contract with placeholders and failed attestations; and a COMPLETED_CONFORMING output with unknown masking, null timestamps, zero hashes, empty logs, and six bottom components.

The six coordinates are best interpreted as window-relative compliance with a frozen evaluation contract. They do not uniquely characterize coherence, and a hand-coded finite conformance device can score (1,1,1,1,1,1). The final verdict is FORMALLY_REPAIRABLE, not methodologically admissible pending testing. Any correction would create a new version requiring a new review.

6. Formal reconstruction of the proposal

The proposal starts from a tuple $m=(X,R,T,\odot,O,P,N)$ and a finite window W containing sampled states, relation types, anchors, declared comparison sets, a composition rule κ_W , and a structural-neutral decomposition λ_W . Each state is mapped to a partial binary relational profile $\pi_W(x)$ in $\{0,1,\text{bottom}\}^n$.

Pairwise distance is normalized Hamming distance on coordinates jointly evaluable in the two profiles. R_W averages similarities over declared replicate pairs; D_W averages distances over declared distinction pairs; Q_W compares observed compound profiles with κ_W ; N_W measures clipped sensitivity ratios under changes to either argument; S_W compares states with selected perturbations; and O_W multiplies preservation of K coordinates by diameter of U -coordinate variation under neutral changes.

The six-vector is primary. FullDom is one when all coordinates are numeric. The optional scalar is the coordinate minimum. A trivalent threshold gate returns pass, fail, or bottom. Signed margins form a fragility vector; max-coordinate discrepancy compares two full-domain windows.

This reconstruction is faithful to the article but exposes that the profile is a second-order object: it depends not only on m , but on the complete declared instrument W and its semantics.

7. Mathematical findings

Three propositions were audited. The R-D non-entailment result is valid. The Q=1 not implying N=1 result is valid. The minimum-geometric-mean inequality is valid but trivial and does not justify the scalarization. No other general theorem establishes uniqueness, sufficiency, invariance, minimality, identifiability, or generalization.

Relevant findings: FORM-02, FORM-03, FORM-04, FORM-05, FORM-07, FORM-13, PROOF-01, PROOF-02

8. Domain and partiality findings

The article correctly distinguishes zero from bottom at the conceptual level. The implementation is incomplete because operations on bottom are not closed. The safe mean avoids converting an entirely unevaluable set to zero, but it silently drops bottom terms and therefore creates severe selection bias. FullDom only means that each coordinate has at least one surviving term; it does not mean full profile support, full state coverage, full anchor coverage, or adequate sampling.

A corrected design would need, at minimum, typed finite sets; explicit bottom propagation rules; pairwise support counts and fractions; common-support constraints for ratios; minimum effective-sample requirements; and separate indicators for component domain, item coverage, and coordinate coverage.

Relevant findings: FORM-02, FORM-03, FORM-05, FORM-06, FORM-07, FORM-12

9. Findings for R_W

R_W is mathematically intelligible once similarity is made a proper partial function. It measures recurrence of the selected profile under pairs labelled replicate. It does not measure empirical reproducibility across laboratories, independent implementations, or data-generating processes. Identity pairs, duplicate pairs, or constant profiles can force high R. The article states the constant-system confound correctly.

A complete specification should forbid or separately report self-pairs, duplicate weighting, overlapping train/test use, and pair selection based on observed similarity.

Relevant findings: FORM-02, FORM-03, FORM-06, PROOF-01

10. Findings for D_W

D_W is also intelligible after domain repair. It measures separation on pairs labelled distinct. Random or unique identifiers can inflate D without meaningful organization. D can be made one by encoding instance identity, even if every higher-order relation is absent. Its scientific content therefore rests entirely on independent justification of Pi_D and the observation vocabulary.

Relevant findings: FORM-02, FORM-06, PROOF-01, FORM-16

11. Findings for Q_W

Q_W is agreement with a declared predictor of compound profiles. It becomes compositionality only if kappa_W is independently motivated, not a finite table fitted or selected to match the chosen compounds. The anti-tautology box addresses same-data fitting but does not exclude memorization from prior system knowledge, hand design, or a saturated pre-freeze lookup table.

Out-of-sample composition pairs, complexity penalties, invariance across transported windows, and a clearly defined hypothesis class are needed before Q can support a stronger compositionality claim.

Relevant findings: FORM-02, FORM-09, FORM-16

12. Findings for N_W

N_W captures a useful distinction between fit and sensitivity, and Proposition 6.6 is valid. The current ratio does not ensure that the same relational coordinates carry the change from input to compound. Its independent normalizations permit support switching. Clipping hides amplification, and the equal average allows complete loss of one argument to be reported as 0.5.

A repair could use a common coordinate mask, report first- and second-argument sensitivities separately, impose a minimum or conjunction, and preregister how amplification is handled.

Relevant findings: FORM-07, FORM-08, PROOF-02

13. Findings for S_W

S_W is a local invariance score over selected perturbations. It is not structural stability in the dynamical-systems sense, and the article acknowledges this. The score can be trivialized by identity perturbations or driven to zero by excessive disturbances. Perturbation magnitude, equivalence class, sampling design, and expected invariant must be independently fixed.

Relevant findings: FORM-10, FORM-16

14. Findings for O_W

O_W is the least well-formed coordinate. Diameter is undefined, bottom multiplication is unspecified, and lambda_W is unrestricted. The numerical value can be changed from one to zero by swapping which coordinate is declared structural and which is declared neutral. The current safe mean also permits O to be determined by a single state with a neutral set while ignoring every other state.

The name “openness” is therefore justified only as a contract-defined conjunction of K preservation and U dispersion, not as an intrinsic property of the system.

Relevant findings: FORM-04, FORM-05, FORM-06, FORM-16

15. Findings on scalarization and gates

The minimum scalarization is transparent and anti-compensatory, but it is maximally sensitive to one noisy coordinate and lacks uncertainty propagation. The proposition comparing it with the geometric mean is correct but does not establish optimality.

The trivalent gate is not monotone with respect to negative evidence: one known failing coordinate plus one bottom produces bottom rather than fail. Thresholds are neither derived nor statistically calibrated. Margins are descriptive distances from policy cutoffs, not confidence, effect size, or robustness estimates.

Relevant findings: FORM-11, FORM-12, FORM-13, PROTO-05

16. Findings on non-circularity

The manuscript correctly states that freezing does not make a choice scientifically correct. Nevertheless, non-circularity is not achieved merely by temporal order. A target-informed issuer can preselect observations, relations, pairs, kappa, lambda, thresholds, and a favorable window before the formal lock. A frozen arbitrary choice remains arbitrary; a frozen lookup rule remains a lookup rule.

The protocol reduces undisclosed post-lock adaptation if honestly followed. It does not establish construct validity, independent instrument design, or freedom from pre-lock overfitting. True separation would require an independently justified measurement model, external target sampling, held-out windows, and governance that does not rely solely on self-attestation.

Relevant findings: FORM-09, FORM-16, PROTO-06, PROTO-07

17. New adversarial counterexamples

Seven adversarial witnesses were constructed. The first five satisfy the requested categories; two additional witnesses isolate gate and support defects.

17.1 High-profile but structurally misleading conformance device

A finite, hand-coded state table uses clone pairs for R, complementary profiles for D, a four-entry composition table for Q and N, identity-profile perturbations for S, and two neutral variants for O. Direct computation gives:

```
K_TUC = (1, 1, 1, 1, 1, 1)
```

The device has no demonstrated law outside the selected table, no semantic interpretation, and no meaningful dynamics. It proves that a perfect profile can be engineered as test compliance.

17.2 Sparse comparable-support exploit

Two 100-coordinate profiles share only coordinate 1. If that coordinate matches, similarity is 1; if it differs, distance is 1. The effective support fraction is 0.01. A single surviving pair per component can still yield FullDom=1.

17.3 Neutral-coordinate decomposition game

Baseline $x=(0,0)$, neutral outputs $z_0=(0,0)$, $z_1=(0,1)$. With $K=\{\text{first coordinate}\}$, $U=\{\text{second}\}$, $P_K=1$, $V_U=1$, $O=1$. With the alternative split $K=\{\text{second}\}$, $U=\{\text{first}\}$, $P_K=0.5$, $V_U=0$, $O=0$. The system is unchanged; only the declaration changes.

17.4 Composition-rule memorization game

Let κ_W be the exact finite lookup table of observed compound profiles for every pair in P_iQ . It is frozen before the scoring run, so $Q=1$, and can be arranged to preserve both arguments on those pairs so $N=1$. On an equally reasonable held-out window containing new pairs, kappa is arbitrary or undefined and Q collapses. Freezing has prevented post-run editing but not tautological instrument construction.

17.5 Reasonable-window reversal

Construct one system with two equally large regions: a regular region whose declared pairs satisfy all six tests and an irregular region whose replicate, composition, perturbation, and neutral tests fail. W_{good} samples the first region and W_{bad} samples the second. The same m can move from a near-all-one profile to a near-all-zero profile, giving Δ_{infinity} close to 1. Without a target-independent sampling rule, both windows can be defended.

17.6 N support-switching witness

```
inputs: (0, bottom), (1, bottom); compounds: (bottom, 0), (bottom, 1)
denominator = 1, numerator = 1, s_1 = 1
```

The score reports perfect argument preservation although the variation occurs on a different coordinate set.

17.7 Gate missingness shield

```
K=(0, bottom, 1, 1, 1, 1), tau=(0.5,...,0.5) -> Pass_tau=bottom
```

A known failure is hidden by unrelated non-evaluability.

All numerical witnesses and schema countermodels are reproduced in the accompanying KTUC_Adversarial_Tests.py file.

18. Findings on non-redundancy

The supplied manuscript establishes distinct intentions, not algebraic non-redundancy. R and D are independent absent pair-set constraints; Q and N are logically separable; S and O can also be varied through contract choices. But no reviewed proof shows that each coordinate can vary while the other five remain fixed over a rigorously defined admissible class. Moreover, dependence can arise under natural assumptions: identity perturbations can make S mimic R; a composition rule built from the same relational vocabulary can couple Q and N; and a neutral family chosen as a perturbation subset can couple O and S.

The strongest defensible statement is that the coordinates encode different questions. Algebraic indispensability, statistical independence, causal autonomy, and universal minimality remain open.

Relevant findings: FORM-14, FORM-16

19. Article-supplement consistency

The WordPress manuscript and contextual preprint are mathematically identical. Differences are editorial: web-publication wording, removal of planned Zenodo DOI placeholders, addition of exact supplement hashes and states, and revised declarations. The WordPress article correctly states the received evaluator ZIP hash and both package roots.

One editorial residue remains: the web article refers to the ZIP “distributed with this preprint.” The supplement’s current state and non-computed components match the article. No empirical output is present. The stale root inside DELIVERY_VALIDATION_REPORT.json is the principal consistency defect.

Relevant findings: INT-02, CONSIST-01, CONSIST-02

20. External-protocol audit

Strengths: the package is unusually explicit about non-authorization, non-promotion, zero versus bottom, negative-result publication, stop events, and separation of immutable from editable artefacts. Current state files are coherent and no unauthorized run was found.

Weaknesses: the prose requirements are not encoded as enforceable schema logic. The following adversarial instances all validated against the supplied schemas:

1. GEXT3 READY_EXECUTABLE with blocking checks.
2. GEXT4 READY_FOR_SEPARATE_EXECUTION with role_check=FAIL, blind_check=FAIL, and unequal roots.
3. GEXT5 AUTHORIZED_NOT_STARTED with all-zero hashes, placeholder identifiers, failed attestations, and null signatures.

4. GEXT5 COMPLETED_CONFORMING with unknown masking, null start/end times, zero hashes, empty execution logs, no signature, and R=D=Q=N=S=O=BOTTOM.

Therefore the protocol presently records intended controls but does not machine-enforce them. It can expose post hoc changes only if all actors honestly preserve and disclose logs. It cannot prevent collusion, false attestation, selective non-delivery, or pre-freeze design bias. Negative, undefined, and inconclusive outcomes are structurally publishable in the output vocabulary, which is a genuine positive feature.

Relevant findings: PROTO-01, PROTO-02, PROTO-03, PROTO-04, PROTO-05, PROTO-06, PROTO-07, PROTO-08, PROTO-09, PROTO-10

21. Claim-discipline audit

Claim classification:

- Mathematical definitions: the six coordinates, partial codomain, scalarization, gate, margins, and window discrepancy.
- Proved formal results: only the R-D non-entailment, Q not implying N, and minimum-geometric-mean inequality.
- Illustrative examples: Examples A-E and the displayed representative vectors.
- Methodological proposals: window freezing, adversarial families, reporting order, GEXT protocol.
- Conjectures or open claims: six-coordinate non-redundancy, usefulness across domains, serious target applicability.
- Empirical hypotheses: none tested in the manuscript.
- Ontological statements: explicitly excluded from inference.
- Prohibited interpretations: consciousness, PhiZero, TUC-O truth, universal coherence, external validation without a real run.

The limitations section is strong. The main remaining overstatement is lexical: “structural-dynamic coherence” and “external evaluation” can be read more strongly than the actual contract-relative scores and separately executed procedure. “Independent” should specify whether it means independent scoring, independent instrument design, independent data custody, institutional independence, or all four.

Relevant findings: CLAIM-01, CLAIM-02, BIB-01

22. Fatal issues

No issue was classified FATAL. The defects do not prove that no coherent repair exists. They do mean that the reviewed version cannot be treated as a fully well-formed or methodologically enforceable measurement architecture.

23. Major issues

17 major findings were recorded:

- **FORM-02:** The evaluation-window pair sets and operators are not fully typed or constrained.
- **FORM-03:** Similarity is not well formed when comparable support is empty.
- **FORM-04:** The diameter used by O_W is undefined.
- **FORM-05:** Multiplication involving bottom is not defined in O_W.
- **FORM-06:** FullDom permits arbitrarily sparse support and therefore does not mean full evaluability.
- **FORM-07:** N_W compares ratios computed on potentially different coordinate supports.
- **FORM-09:** Q_W can certify a finite memorizing lookup table rather than a compositional law.

- **FORM-11:** The trivalent gate masks known failure whenever any other coordinate is bottom.
- **FORM-14:** The limited non-redundancy claim is not demonstrated by the supplied reviewed materials.
- **FORM-16:** The profile primarily characterizes compliance with an evaluation contract, not coherence as a system property.
- **PROTO-01:** The schema allows READY_EXECUTABLE while blocking checks are present.
- **PROTO-02:** The receipt schema permits readiness despite failed checks and mismatched hashes.
- **PROTO-03:** The contract schema accepts an authorized contract containing placeholders, zero hashes, failed attestations, and null signatures.
- **PROTO-04:** A completed-conforming output can validate with unknown masking, null times, zero hashes, no logs, and all six components bottom.
- **PROTO-06:** The procedure records and discourages post hoc adaptation but does not technically prevent it.
- **PROTO-07:** Freezing a choice is repeatedly distinguished from validating it, but the architecture still cannot independently justify the choices.
- **CLAIM-01:** Terms such as structural, dynamic, compositional, stability, openness, and external are stronger than the bare mathematics unless read as contract-relative labels.

24. Moderate issues

12 moderate findings were recorded:

- **INT-02:** The validation report contains a stale calculated immutable root.
- **FORM-01:** The observation map O and dynamics T are declared but not operationally used in the six functionals.
- **FORM-08:** Clipping and symmetric averaging encode arbitrary sensitivity policy.
- **FORM-10:** S_W is entirely dependent on undeclared perturbation scale and equivalence semantics.
- **FORM-12:** Fragility margins are not defined for partial profiles.
- **FORM-13:** The minimum-versus-geometric-mean proposition is valid but mathematically trivial and does not justify the scalarization.
- **FORM-15:** Most displayed six-coordinate example vectors are illustrative rather than derivations from fully specified systems.
- **PROTO-05:** Derived outputs are only constrained to be an arbitrary object or NA.
- **PROTO-08:** Role separation and masking are marked required OK but only WARN when deficient.
- **PROTO-09:** The contract schema does not bind the stop_rules list to SR01-SR10 or their actions.
- **PROTO-10:** Completed custody and attestation records lack a specified cryptographic-signature and post-return hash-binding procedure.
- **BIB-01:** Citations are generally relevant but insufficient for the central measurement design.

25. Minor and editorial issues

5 minor/editorial findings were recorded:

- **PROOF-01:** The R-D non-entailment proposition is valid as stated.
- **PROOF-02:** Q_W=1 not implying N_W=1 is valid.
- **CONSIST-01:** The WordPress article still says “distributed with this preprint.”
- **CONSIST-02:** The article’s evaluator-ZIP digest and two internal roots match the supplied package.
- **CLAIM-02:** The limitations and non-promotion statements are unusually explicit and substantially adequate.

26. Unresolved questions

- What admissible class supports the asserted six-way non-redundancy witnesses?

- What exact metric and bottom rules define U-coordinate diameter?
- What minimum support, balance, and coverage are required for each coordinate and for FullDom?
- How are observation maps and relation families independently validated against target constructs?
- What held-out or transported windows prevent finite lookup-table composition rules?
- Should N use common supports and separate argument gates?
- Should a known threshold failure dominate missing coordinates in the trivalent gate?
- Who independently selects the target, window, thresholds, kappa, and lambda, and what evidence justifies them?
- What cryptographic identity, signature, timestamp, and returned-form manifest are required?
- Will revised schemas encode cross-field state invariants rather than relying on prose?

27. Positive findings that survived adversarial review

- The manuscript explicitly and repeatedly denies inference to phenomenal consciousness, PhiZero, TUC-O, neuroscience, physics, or ontology.
- Zero and bottom are conceptually distinguished, even though some bottom operations remain incomplete.
- The R-D non-entailment proposition is valid.
- The Q=1 not implying N=1 proposition is valid.
- The minimum-geometric-mean inequality is valid.
- The vector-before-scalar reporting rule is methodologically sound.
- The current package is genuinely NOT_AUTHORIZED and NOT_STARTED, with all six components NOT_COMPUTED.
- The WordPress article correctly binds itself to the received evaluator ZIP and current roots.
- The protocol explicitly permits negative, bottom, stopped, invalid, and technical-failure outcomes rather than only favorable outputs.
- The article acknowledges that freezing does not scientifically validate a choice.

28. Overall verdict

FORMALLY_REPAIRABLE

Rationale: the central idea can be converted into a mathematically closed family of window-relative diagnostic scores, but the reviewed version contains multiple major domain defects and the external schemas fail adversarial state-logic tests. The proposal is therefore not yet internally complete enough for METHODOLOGICALLY_ADMISSIBLE_PENDING_EXTERNAL_TESTING, and it is not accurate to call it INTERNALLY_COHERENT_BUT_SUBSTANTIALLY_UNDERDETERMINED without first repairing the undefined operations and procedural contradictions.

Required repair direction: issue a new version with complete typing, explicit bottom algebra, a defined metric diameter, coverage rules, aligned-support sensitivity, revised gate logic, demonstrated non-redundancy witnesses, and schema conditionals that enforce authorization, handoff, and completion invariants. That new version would require a new independent review; the current reviewed artefacts must not be silently overwritten.

29. Exact limits of the verdict

This verdict cannot establish and must not be represented as establishing:

- empirical validity;
- measurement or construct validity in natural or artificial systems;
- phenomenal consciousness;

- PhiZero;
- ontological truth or the truth of TUC-O;
- neuroscientific validity;
- physical validity;
- human peer-review status;
- institutional independence or certification;
- the absence of all possible mathematical errors.

The review establishes only that the supplied files were examined under the stated scope, that the reported integrity and schema tests were actually performed, and that the listed findings follow from those artefacts and tests.

Transparency declaration

- Model: GPT-5.6 Thinking.
- Review date: 11 July 2026.
- Web browsing used: No.
- Code execution used: Yes - archive testing, SHA-256 verification, PDF rendering, source comparison, mathematical witness calculations, and JSON Schema countermodel validation.
- Fully inspected: Pasted text mandate; WordPress ZIP contents; canonical 31-page PDF; canonical LaTeX; bibliography; README; checksum file; evaluator package inventory; operational JSON/CSV/MD/TXT files; integrity script; manifests; state files; reference-preprint source and its diff against the WordPress source.
- Partially inspected: protocol PDFs were visually inspected through their supplied contact sheets and checked against their LaTeX/operational counterparts; the older TUC Volume I was not substantively reviewed.
- Technical limitations: no independently delivered outer-ZIP checksum sidecar; no external signature or timestamp verification; no empirical target or data; no web-based literature verification; no human expert adjudication.
- Declaration: this report is AI-generated and is not human peer review.

30. Machine-readable finding table

The complete finding table is embedded below and separately supplied as CSV and JSON for machine processing. Each row contains the required identifier, severity, exact document/location, description, reasoning, reproducible test, consequence, and disposition.

ID	Severity	Document/location	Finding	Disposition
INT-01	UNRESOLVED	Outer evaluator-package delivery - Quick instructions; separately supplied ZIP sidecar requirement	No separately delivered .zip.sha256 sidecar was present among the received files.	UNRESOLVED
INT-02	MODERATE	DELIVERY_VALIDATION_REPORT.json - checks[0].detail versus immutable_root_sha256	The validation report contains a stale calculated immutable root.	REPAIRABLE
FORM-01	MODERATE	WordPress article - p. 12, Definition 5.1; pp. 12-16, Definitions 5.2-6.9	The observation map O and dynamics T are declared but not operationally used in the six functionals.	REPAIRABLE
FORM-02	MAJOR	WordPress article -	The evaluation-	REPAIRABLE

		p. 12, Definition 5.2	window pair sets and operators are not fully typed or constrained.	
FORM-03	MAJOR	WordPress article - p. 13, Equations 10-12	Similarity is not well formed when comparable support is empty.	REPAIRABLE
FORM-04	MAJOR	WordPress article - p. 16, Equations 25-30	The diameter used by O_W is undefined.	REPAIRABLE
FORM-05	MAJOR	WordPress article - p. 16, Equation 30	Multiplication involving bottom is not defined in O_W .	REPAIRABLE
FORM-06	MAJOR	WordPress article - pp. 13, 17; Equation 13 and Definition 6.10	FullDom permits arbitrarily sparse support and therefore does not mean full evaluability.	REPAIRABLE
FORM-07	MAJOR	WordPress article - pp. 14-15, Equations 18-22	N_W compares ratios computed on potentially different coordinate supports.	REPAIRABLE
FORM-08	MODERATE	WordPress article - p. 15, Equations 20-22; Example C pp. 18	Clipping and symmetric averaging encode arbitrary sensitivity policy.	REPAIRABLE
FORM-09	MAJOR	WordPress article - p. 14, Equations 16-17 and anti-tautology box	Q_W can certify a finite memorizing lookup table rather than a compositional law.	REPAIRABLE
FORM-10	MODERATE	WordPress article - p. 15, Equations 23-24	S_W is entirely dependent on undeclared perturbation scale and equivalence semantics.	REPAIRABLE
FORM-11	MAJOR	WordPress article - p. 20, Equation 42	The trivalent gate masks known failure whenever any other coordinate is bottom.	REPAIRABLE
FORM-12	MODERATE	WordPress article - p. 20, Equations 43-44	Fragility margins are not defined for partial profiles.	REPAIRABLE
FORM-13	MODERATE	WordPress article - p. 20, Proposition 8.1	The minimum-versus-geometric-mean proposition is valid but mathematically trivial and does not justify the scalarization.	REPAIRABLE
FORM-14	MAJOR	WordPress article and supplied supplement - p. 21,	The limited non-redundancy claim is not demonstrated by	UNRESOLVED

		Section 9.3	the supplied reviewed materials.	
FORM-15	MODERATE	WordPress article - pp. 17-19, Examples A-E	Most displayed six-coordinate example vectors are illustrative rather than derivations from fully specified systems.	REPAIRABLE
FORM-16	MAJOR	WordPress article - Definition 2.1, p. 7; Definitions 5.2-6.9, pp. 12-16	The profile primarily characterizes compliance with an evaluation contract, not coherence as a system property.	REPAIRABLE
PROOF-01	MINOR	WordPress article - pp. 13-14, Proposition 6.3	The R-D non-entailment proposition is valid as stated.	SURVIVES_REVIEW
PROOF-02	MINOR	WordPress article - p. 15, Proposition 6.6	$Q_W=1$ not implying $N_W=1$ is valid.	SURVIVES_REVIEW
PROTO-01	MAJOR	GEXT3_Formal_Lock_Verification_Schema.json - status_preexecution and checks properties	The schema allows READY_EXECUTABLE while blocking checks are present.	REPAIRABLE
PROTO-02	MAJOR	GEXT4_Receipt_Schema.json - role_check, blind_check, hashes, and status	The receipt schema permits readiness despite failed checks and mismatched hashes.	REPAIRABLE
PROTO-03	MAJOR	GEXT5_Execution_Contract_Schema.json - authorization, status, hashes, attestations, signatures	The contract schema accepts an authorized contract containing placeholders, zero hashes, failed attestations, and null signatures.	REPAIRABLE
PROTO-04	MAJOR	GEXT5_Constrained_Output_Schema.json - run_status COMPLETED_CONFORMING and allOf constraints	A completed-conforming output can validate with unknown masking, null times, zero hashes, no logs, and all six components bottom.	REPAIRABLE
PROTO-05	MODERATE	GEXT5_Constrained_Output_Schema.json - primary_output.scala rization, gate, fragility	Derived outputs are only constrained to be an arbitrary object or NA.	REPAIRABLE
PROTO-06	MAJOR	Protocol chain	The procedure	UNRESOLVED

		GEXT1-GEXT6 - Role separation, masking, and preregistration architecture	records and discourages post hoc adaptation but does not technically prevent it.	
PROTO-07	MAJOR	WordPress article and GEXT protocols - Article pp. 21-23; preregistration forms	Freezing a choice is repeatedly distinguished from validating it, but the architecture still cannot independently justify the choices.	UNRESOLVED
PROTO-08	MODERATE	GEXT3_PreExecution_Admissibility_Checklist.csv - C_roles and C_blind rows	Role separation and masking are marked required OK but only WARN when deficient.	REPAIRABLE
PROTO-09	MODERATE	GEXT5_Stop_Rules.csv and Execution Contract Schema - stop_rules field	The contract schema does not bind the stop_rules list to SR01-SR10 or their actions.	REPAIRABLE
PROTO-10	MODERATE	06_RETURN_TO_ISSUER_EDITABLE and output schemas - Chain of custody and signature fields	Completed custody and attestation records lack a specified cryptographic-signature and post-return hash-binding procedure.	REPAIRABLE
CONSIST-01	MINOR	WordPress article versus reference preprint - WordPress p. 28, Availability of Supplementary Materials	The WordPress article still says “distributed with this preprint.”	REPAIRABLE
CONSIST-02	MINOR	WordPress article and evaluator ZIP - WordPress p. 28; package manifests	The article’s evaluator-ZIP digest and two internal roots match the supplied package.	SURVIVES_REVIEW
CLAIM-01	MAJOR	WordPress article - Title, Abstract, Definition 2.1, Discussion	Terms such as structural, dynamic, compositional, stability, openness, and external are stronger than the bare mathematics unless read as contract-relative labels.	REPAIRABLE
CLAIM-02	MINOR	WordPress article - pp. 24-25, Section 12	The limitations and non-promotion statements are unusually explicit	SURVIVES_REVIEW

			and substantially adequate.	
BIB-01	MODERATE	references.bib and article citations - Bibliography; Sections 1, 6, 9, 10, 12, 13	Citations are generally relevant but insufficient for the central measurement design.	REPAIRABLE

Detailed machine-readable record format

Columns: id, severity, document, location, description, reasoning, test, consequence, disposition

Appendix A. Detailed finding records

INT-01 - UNRESOLVED

Document: Outer evaluator-package delivery

Location: Quick instructions; separately supplied ZIP sidecar requirement

Description: No separately delivered .zip.sha256 sidecar was present among the received files.

Reasoning: The internal package root and the article-stated ZIP digest could be recomputed, but authenticity against an independently delivered outer-ZIP digest could not be checked.

Reproducible counterexample or test: Computed evaluator ZIP SHA-256 = f0b9a9cc408d4bc19702bc0709dee063acc7d68512548425a12dbbce05084df9; no separate sidecar was available.

Consequence: Internal integrity is verified, but independent delivery-channel authenticity remains unverified.

Disposition: UNRESOLVED

INT-02 - MODERATE

Document: DELIVERY_VALIDATION_REPORT.json

Location: checks[0].detail versus immutable_root_sha256

Description: The validation report contains a stale calculated immutable root.

Reasoning: The report states immutable_root_sha256 12a912... but its embedded ENGLISH_IMMUTABLE_MANIFEST detail says CALCULATED_ROOT 125334.... The current verifier recomputes 12a912... and passes.

Reproducible counterexample or test: Run python 07_INTEGRITY_TOOLS/verify_delivery_package.py and compare output with DELIVERY_VALIDATION_REPORT.json.

Consequence: The package is presently internally verifiable, but the historical validation report is not self-consistent and cannot be treated as a reliable audit snapshot without explanation.

Disposition: REPAIRABLE

FORM-01 - MODERATE

Document: WordPress article

Location: p. 12, Definition 5.1; pp. 12-16, Definitions 5.2-6.9

Description: The observation map O and dynamics T are declared but not operationally used in the six functionals.

Reasoning: Relational profiles are defined directly through $R_j(x,a)$, and none of R,D,Q,N,S,O invokes the declared observation map or the allowed dynamics T .

Reproducible counterexample or test: Trace every occurrence of mathematical O and T in the definitions; O is discussed conceptually, while T is absent from scoring.

Consequence: The tuple contains formally idle components, and the title term “dynamic” is only weakly represented by perturbation tests rather than by T .

Disposition: REPAIRABLE

FORM-02 - MAJOR

Document: WordPress article

Location: p. 12, Definition 5.2

Description: The evaluation-window pair sets and operators are not fully typed or constrained.

Reasoning: The article does not explicitly require Π_R , Π_D , Π_Q , Π_P , and Π_N to be finite subsets of specified products, nor state whether duplicates, self-pairs, empty sets, or repeated weights are allowed. κ_W and λ_W lack complete domain and codomain declarations.

Reproducible counterexample or test: Attempt to instantiate W with Π_R containing an element outside $X_W \times X_W$, or with an empty Π_D ; the prose does not formally exclude it.

Consequence: Several functionals can be undefined for reasons not captured by bottom, and reproducible implementations may disagree on admissible windows.

Disposition: REPAIRABLE

FORM-03 - MAJOR

Document: WordPress article

Location: p. 13, Equations 10-12

Description: Similarity is not well formed when comparable support is empty.

Reasoning: $\text{dist}_W(u,v)$ is set to bottom when $I(u,v)$ is empty, but $\text{sim}_W(u,v)=1-\text{dist}_W(u,v)$ is written without defining arithmetic on bottom.

Reproducible counterexample or test: Take $u=(\text{bottom})$ and $v=(\text{bottom})$. Then $\text{dist}_W=\text{bottom}$ and $1-\text{bottom}$ is undefined under the stated codomain.

Consequence: R , Q , S , and O inherit an unclosed operation unless a separate case definition is added.

Disposition: REPAIRABLE

FORM-04 - MAJOR

Document: WordPress article

Location: p. 16, Equations 25-30

Description: The diameter used by O_W is undefined.

Reasoning: No metric, support convention, singleton convention, or bottom-handling rule is supplied for $\text{diam}\{\pi_W^U(z)\}$. The earlier dist_W could be intended, but this is not stated and may itself be bottom for some pairs.

Reproducible counterexample or test: Use two U -profiles with disjoint evaluable supports; their dist_W is bottom, so the diameter has no specified value.

Consequence: O_W is not a total partial functional on the declared domain.

Disposition: REPAIRABLE

FORM-05 - MAJOR**Document:** WordPress article**Location:** p. 16, Equation 30**Description:** Multiplication involving bottom is not defined in O_W .**Reasoning:** $P_K(x)V_U(x)$ is formed before the safe mean. The article only says both terms are bottom when the neutral set is empty; it does not define bottom times a number or bottom times bottom.**Reproducible counterexample or test:** Let the neutral set be nonempty but all K comparisons have empty comparable support while U diameter is numeric. $P_K = \text{bottom}$ and V_U is numeric; the product has no stated value.**Consequence:** The codomain claim for O_W is incomplete.**Disposition:** REPAIRABLE**FORM-06 - MAJOR****Document:** WordPress article**Location:** pp. 13, 17; Equation 13 and Definition 6.10**Description:** FullDom permits arbitrarily sparse support and therefore does not mean full evaluability.**Reasoning:** Each safe mean is numeric as soon as one term is evaluable. FullDom only checks that six coordinates are numeric; it imposes no minimum pair count, support fraction, anchor coverage, or balance.**Reproducible counterexample or test:** A 100-coordinate profile pair sharing one coordinate can produce similarity 1 or distance 1 with 1% support. One such pair per component yields FullDom=1.**Consequence:** A nominally full six-coordinate pass can rest on negligible evidence. “Full domain” is materially misleading unless coverage constraints are added.**Disposition:** REPAIRABLE**FORM-07 - MAJOR****Document:** WordPress article**Location:** pp. 14-15, Equations 18-22**Description:** N_W compares ratios computed on potentially different coordinate supports.**Reasoning:** The denominator distance between inputs and numerator distance between compounds independently normalize over their own comparable supports. The ratio can equal one even when the changed coordinate in the compound is unrelated to the changed input coordinate.**Reproducible counterexample or test:** Input profiles (0,bottom) and (1,bottom) give denominator 1 on coordinate 1; compound profiles (bottom,0) and (bottom,1) give numerator 1 on coordinate 2; sensitivity is reported as 1.**Consequence:** N_W does not necessarily measure preservation of an argument’s contribution; support-switching or unrelated variation can game it.**Disposition:** REPAIRABLE

FORM-08 - MODERATE

Document: WordPress article

Location: p. 15, Equations 20-22; Example C pp. 18

Description: Clipping and symmetric averaging encode arbitrary sensitivity policy.

Reasoning: Ratios above one are collapsed to one, and first- and second-argument means receive equal weight regardless of support size. A projection receives $N_W=0.5$, which may pass any threshold at or below 0.5.

Reproducible counterexample or test: For $\pi(x \odot y)=\pi(x)$, mean $s_1=1$ and mean $s_2=0$, hence $N=0.5$.

Consequence: The label “non-collapse” is stronger than the actual averaged policy; separate gates or a minimum may be needed.

Disposition: REPAIRABLE

FORM-09 - MAJOR

Document: WordPress article

Location: p. 14, Equations 16-17 and anti-tautology box

Description: Q_W can certify a finite memorizing lookup table rather than a compositional law.

Reasoning: Freezing κ before scoring prevents some post hoc fitting but does not independently justify κ or require out-of-window generalization. A lookup table over the exact finite Π_Q can be frozen and score $Q=1$.

Reproducible counterexample or test: Define $\kappa(u,v)$ as the stored observed compound profile for every pair in Π_Q and arbitrary behavior elsewhere; $Q=1$ on W but can fail completely on W prime.

Consequence: Q measures contract fit, not necessarily systematic compositionality.

Disposition: REPAIRABLE

FORM-10 - MODERATE

Document: WordPress article

Location: p. 15, Equations 23-24

Description: S_W is entirely dependent on undeclared perturbation scale and equivalence semantics.

Reasoning: The formalism supplies no magnitude, distribution, direction, or task-relative equivalence relation for perturbations. Identity or near-identity perturbations make S trivial; destructive perturbations make it fail.

Reproducible counterexample or test: Replace every p by the identity map to force $S=1$ without demonstrating robustness.

Consequence: S is a compliance score for a perturbation contract, not an intrinsic stability measure.

Disposition: REPAIRABLE

FORM-11 - MAJOR

Document: WordPress article

Location: p. 20, Equation 42

Description: The trivalent gate masks known failure whenever any other coordinate is bottom.

Reasoning: The gate returns bottom whenever FullDom=0, even if an evaluable coordinate is already below threshold. A monotone evidence logic would return failure when any known coordinate fails and reserve bottom for cases with no known failure but insufficient information.

Reproducible counterexample or test: $K=(0, \text{bottom}, 1, 1, 1, 1)$, $\tau=(0.5, \dots, 0.5)$. The article gate returns bottom rather than 0.

Consequence: Missingness can suppress a decisive negative result and weaken the claimed anti-compensation policy.

Disposition: REPAIRABLE

FORM-12 - MODERATE

Document: WordPress article

Location: p. 20, Equations 43-44

Description: Fragility margins are not defined for partial profiles.

Reasoning: $\mu_i = K_i - \tau_i$ requires numerical K_i , but the section does not explicitly restrict FragProf to FullDom=1 or define partial margins.

Reproducible counterexample or test: Set $K_Q = \text{bottom}$; $\text{bottom} - \tau_Q$ is undefined.

Consequence: The stated fragility profile lacks an explicit domain.

Disposition: REPAIRABLE

FORM-13 - MODERATE

Document: WordPress article

Location: p. 20, Proposition 8.1

Description: The minimum-versus-geometric-mean proposition is valid but mathematically trivial and does not justify the scalarization.

Reasoning: The inequality is elementary. It establishes no decision-theoretic, statistical, or scientific reason to prefer the minimum, and no robustness to noise or estimation error.

Reproducible counterexample or test: Any six nonnegative numbers satisfy $\min \leq \text{geometric mean}$.

Consequence: The scalarization remains a policy choice and should not be presented as theoretically derived.

Disposition: REPAIRABLE

FORM-14 - MAJOR

Document: WordPress article and supplied supplement

Location: p. 21, Section 9.3

Description: The limited non-redundancy claim is not demonstrated by the supplied reviewed materials.

Reasoning: The article asserts witness constructions in an internal development, but the supplied article examples do not hold five coordinates fixed while varying the sixth, and the evaluator package contains no corresponding proof or registry.

Reproducible counterexample or test: Search the supplied article and package for six coordinate-isolation witnesses; none are provided as reviewed evidence.

Consequence: The claimed modular non-redundancy remains unsupported rather than established.

Disposition: UNRESOLVED

FORM-15 - MODERATE

Document: WordPress article

Location: pp. 17-19, Examples A-E

Description: Most displayed six-coordinate example vectors are illustrative rather than derivations from fully specified systems.

Reasoning: Examples B-D state stylized or representative values for coordinates not generated by the supplied assumptions. The article often labels them honestly, but readers could still mistake the table for computed evidence.

Reproducible counterexample or test: Attempt to recompute all six coordinates from Example D; no profiles, pair sets, operators, or neutral split are supplied.

Consequence: The examples support intuition, not numerical validation or exhaustive separation.

Disposition: REPAIRABLE

FORM-16 - MAJOR

Document: WordPress article

Location: Definition 2.1, p. 7; Definitions 5.2-6.9, pp. 12-16

Description: The profile primarily characterizes compliance with an evaluation contract, not coherence as a system property.

Reasoning: Every coordinate depends on declared labels, anchors, pair sets, kappa, lambda, perturbations, and neutral variations. A hand-coded finite conformance device can score (1,1,1,1,1,1) without possessing a general law, semantics, or dynamics beyond the test.

Reproducible counterexample or test: The accompanying adversarial script constructs an explicit lookup-style system with all six coordinates equal to one.

Consequence: The term “technical coherence” is operationally stipulated, but stronger readings of “structural-dynamic coherence” are underdetermined.

Disposition: REPAIRABLE

PROOF-01 - MINOR

Document: WordPress article

Location: pp. 13-14, Proposition 6.3

Description: The R-D non-entailment proposition is valid as stated.

Reasoning: The pair sets are independent absent linking constraints, so countermodels with high R/low D and low R/high D exist.

Reproducible counterexample or test: Use identical profiles on Pi_R and collapsed profiles on Pi_D, then reverse the construction.

Consequence: No correction required, though explicit finite witnesses would improve rigor.

Disposition: SURVIVES_REVIEW

PROOF-02 - MINOR

Document: WordPress article

Location: p. 15, Proposition 6.6

Description: $Q_W=1$ not implying $N_W=1$ is valid.

Reasoning: A constant kappa matched by constant compound profiles gives $Q=1$ while positive-denominator argument changes have zero compound sensitivity.

Reproducible counterexample or test: Use two distinct inputs on each side and a constant compound profile.

Consequence: The proposition correctly motivates separating fit from non-collapse.

Disposition: SURVIVES_REVIEW

PROTO-01 - MAJOR

Document: GEXT3_Formal_Lock_Verification_Schema.json

Location: status_preexecution and checks properties

Description: The schema allows READY_EXECUTABLE while blocking checks are present.

Reasoning: No conditional constraint links status_preexecution to the values in checks.

Reproducible counterexample or test: A JSON instance with checks $C_{hash}=C_{roles}=C_{blind}=BLOCK$ and $status_preexecution=READY_EXECUTABLE$ validates successfully.

Consequence: Schema validity does not enforce pre-execution admissibility.

Disposition: REPAIRABLE

PROTO-02 - MAJOR

Document: GEXT4_Receipt_Schema.json

Location: role_check, blind_check, hashes, and status

Description: The receipt schema permits readiness despite failed checks and mismatched hashes.

Reasoning: No conditional links READY_FOR_SEPARATE_EXECUTION to $role_check=OK$, $blind_check=OK$, or equality of declared and calculated roots.

Reproducible counterexample or test: A receipt with role_check=FAIL, blind_check=FAIL, different 64-character roots, and status READY_FOR_SEPARATE_EXECUTION validates.

Consequence: The handoff schema does not implement the article's ValidHandoff equivalence.

Disposition: REPAIRABLE

PROTO-03 - MAJOR

Document: GEXT5_Execution_Contract_Schema.json

Location: authorization, status, hashes, attestations, signatures

Description: The contract schema accepts an authorized contract containing placeholders, zero hashes, failed attestations, and null signatures.

Reasoning: Hex patterns accept all-zero digests; placeholder strings satisfy minLength; role and blind attestations are not required and not coupled to authorization; signatures are optional.

Reproducible counterexample or test: Mutating the frozen template to authorization=AUTHORIZED_NOT_STARTED, status=AUTHORIZED_NOT_STARTED, role_attestation=FAIL, blind_attestation=FAIL while retaining zero hashes and null signatures validates.

Consequence: The schema does not prevent invalid authorization; procedural prose, not machine validation, carries the restriction.

Disposition: REPAIRABLE

PROTO-04 - MAJOR

Document: GEXT5_Constrained_Output_Schema.json

Location: run_status COMPLETED_CONFORMING and allOf constraints

Description: A completed-conforming output can validate with unknown masking, null times, zero hashes, no logs, and all six components bottom.

Reasoning: The completed condition only excludes NOT_COMPUTED. It does not require nonzero hashes, nonempty log manifests, actual timestamps, integral masking, signatures, or any numeric component.

Reproducible counterexample or test: The accompanying script validates such a countermodel against the supplied schema.

Consequence: "Completed conforming" is not equivalent to the article's ConformingOutput conditions.

Disposition: REPAIRABLE

PROTO-05 - MODERATE

Document: GEXT5_Constrained_Output_Schema.json

Location: primary_output.scalarization, gate, fragility

Description: Derived outputs are only constrained to be an arbitrary object or NA.

Reasoning: No schema fixes the fields, threshold vector, coordinate order, margins, or relation between the derived object and K_TUC.

Reproducible counterexample or test: Any JSON object, including an empty object, validates as scalarization, gate, or fragility.

Consequence: Post hoc or semantically inconsistent derived summaries can still be schema-valid.

Disposition: REPAIRABLE

PROTO-06 - MAJOR

Document: Protocol chain GEXT1-GEXT6

Location: Role separation, masking, and preregistration architecture

Description: The procedure records and discourages post hoc adaptation but does not technically prevent it.

Reasoning: Role separation and masking are self-attested; distinct persons or institutions are not machine-enforced; signatures are untyped strings; returned custody forms are editable. Collusion or false attestation remains possible.

Reproducible counterexample or test: The same individual could populate multiple role fields with different codes and produce schema-valid documents.

Consequence: The package is a disciplined documentation framework, not a tamper-proof or institutionally independent validation system.

Disposition: UNRESOLVED

PROTO-07 - MAJOR

Document: WordPress article and GEXT protocols

Location: Article pp. 21-23; preregistration forms

Description: Freezing a choice is repeatedly distinguished from validating it, but the architecture still cannot independently justify the choices.

Reasoning: The issuer may select O, R, anchors, pairs, kappa, lambda, thresholds, target, and windows before the formal lock using prior knowledge. The external evaluator executes rather than independently designs the instrument.

Reproducible counterexample or test: A finite lookup kappa and favorable window can be frozen honestly and still yield a predetermined pass.

Consequence: The protocol can separate scoring from execution but cannot by itself establish measurement validity or non-arbitrariness.

Disposition: UNRESOLVED

PROTO-08 - MODERATE

Document: GEXT3_PreExecution_Admissibility_Checklist.csv

Location: C_roles and C_blind rows

Description: Role separation and masking are marked required OK but only WARN when deficient.

Reasoning: The checklist permits a warning rather than a block for conditions that the article's ValidHandoff equation requires to equal one.

Reproducible counterexample or test: Compare C_roles/C_blind blocking_if=WARN with article Equation 49 requiring RoleSeparation=1 and BlindOK=1.

Consequence: The article and checklist encode different gate strictness.

Disposition: REPAIRABLE

PROTO-09 - MODERATE

Document: GEXT5_Stop_Rules.csv and Execution Contract Schema

Location: stop_rules field

Description: The contract schema does not bind the stop_rules list to SR01-SR10 or their actions.

Reasoning: The field is merely a nonempty array of strings; a later contract can contain arbitrary names and still validate.

Reproducible counterexample or test: Replace all stop rules with ["IGNORE_FAILURES"]; the schema remains valid.

Consequence: The frozen CSV is documentary unless an authorization process separately verifies exact hashes and semantic equality.

Disposition: REPAIRABLE

PROTO-10 - MODERATE

Document: 06_RETURN_TO_ISSUER_EDITABLE and output schemas

Location: Chain of custody and signature fields

Description: Completed custody and attestation records lack a specified cryptographic-signature and post-return hash-binding procedure.

Reasoning: The forms are intentionally editable, while signature fields are free text. The package does not define a signature algorithm, certificate identity, timestamp authority, or immutable returned-form manifest.

Reproducible counterexample or test: Modify a completed CSV after signature text is inserted; no supplied verifier detects the change unless an external hash workflow is added.

Consequence: Chain-of-custody evidence is procedurally useful but not cryptographically self-authenticating.

Disposition: REPAIRABLE

CONSIST-01 - MINOR

Document: WordPress article versus reference preprint

Location: WordPress p. 28, Availability of Supplementary Materials

Description: The WordPress article still says “distributed with this preprint.”

Reasoning: The web edition otherwise consistently replaces “preprint” with “methodological article.”

Reproducible counterexample or test: Compare the two LaTeX sources.

Consequence: Editorial inconsistency only.

Disposition: REPAIRABLE

CONSIST-02 - MINOR

Document: WordPress article and evaluator ZIP

Location: WordPress p. 28; package manifests

Description: The article's evaluator-ZIP digest and two internal roots match the supplied package.

Reasoning: The stated ZIP SHA-256 f0b9... equals the received ZIP; immutable root 12a912... and normative root 7482... also match the current manifests.

Reproducible counterexample or test: Run sha256sum on the ZIP and the package verifier.

Consequence: The primary article is correctly tied to the supplied supplement version, subject to INT-01 and INT-02.

Disposition: SURVIVES_REVIEW

CLAIM-01 - MAJOR

Document: WordPress article

Location: Title, Abstract, Definition 2.1, Discussion

Description: Terms such as structural, dynamic, compositional, stability, openness, and external are stronger than the bare mathematics unless read as contract-relative labels.

Reasoning: The functionals quantify selected binary relational comparisons under declared test objects; they do not establish intrinsic structure, genuine dynamics, scientific compositionality, general robustness, or institutional externality.

Reproducible counterexample or test: The all-one conformance-device witness satisfies the formulas while lacking out-of-window generality.

Consequence: Every public use should retain the qualifiers "window-relative," "technical," and "contract-defined."

Disposition: REPAIRABLE

CLAIM-02 - MINOR

Document: WordPress article

Location: pp. 24-25, Section 12

Description: The limitations and non-promotion statements are unusually explicit and substantially adequate.

Reasoning: The article clearly denies inference to phenomenal consciousness, PhiZero, TUC-O, natural thresholds, universal minimality, or empirical validity.

Reproducible counterexample or test: Review Equations 52-54 and the current epistemic status box.

Consequence: These statements survived adversarial review and should be preserved verbatim in any revision.

Disposition: SURVIVES_REVIEW

BIB-01 - MODERATE

Document: references.bib and article citations

Location: Bibliography; Sections 1, 6, 9, 10, 12, 13

Description: Citations are generally relevant but insufficient for the central measurement design.

Reasoning: The bibliography supports broad discussions of robustness, compositionality, preregistration, and multiobjective optimization, but supplies no literature on missing-data similarity, partial Hamming metrics, measurement validity, construct validity, test design, or schema-based provenance enforcement.

Reproducible counterexample or test: Map citations to the novel definitions; the central formulas are uncited constructions.

Consequence: The proposal is not invalid for being novel, but its methodological positioning and alternative design choices are underdeveloped.

Disposition: REPAIRABLE