

CEDA DIAGNOSTIC CARD — CED-008

Header

- **Audit ID:** CED-008
 - **Paper Title:** *Generalized G-inflation*
 - **Authors:** Kobayashi, Yamaguchi, Yokoyama
 - **Year / Venue:** 2011, *PTP*
 - **Audit Role / Class:** Inflationary framework
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Run Validity Gate (RG)

- RG1 Model Card complete
- RG2 Translation Card complete
- RG-X Exchange-term verified
- RG3 Forbidden moves pre-screen
- RG4 Diagnostic criteria predeclared
- RG5 Null binding acknowledged

RG Status: PASSED

Diagnostics Requested

D1 — Horizon Reconfiguration Null

- Requested: Yes
 - Justification: Model introduces explicit action-level dynamics; horizon-only null trivially satisfied.
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D2 — Coarse-Graining Stability

- Requested: Yes
- Admissible variations:**
- Parameter changes within stability region
 - Field redefinitions

Failure criteria:

- Loss of inflation under admissible variation
 - Retuning required to maintain acceleration
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D3 — Exchange-Term Provenance

- Requested: Yes
- Key questions:**
- Do effective fluid terms act as regulators?
 - Is closure action-derived under translation?
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C1 — Coupling Provenance & Redundancy

- Requested: Yes
- **Mode:** Framework

Compression test:

Determine whether inflationary behavior is generic across unrestricted GiG_iGi or requires function-by-function tuning.

Retuning sensitivity:

Test whether small admissible perturbations in GiG_iGi can continuously eliminate inflation while preserving early-time background.

S1 — Scheme / State Dependence

- Requested: Yes

State-conditional: Stability varies with physical background variables

Scheme-fragile: Stability changes under equivalent field redefinitions

D4 — Predictive Wedge

- Requested: Conditional

Trigger: D2 and D3 pass

Wedge definition: Generic violation of standard consistency relations expressed in invariant observables

Conditional Verdict Symmetry

- Enabled: Yes

Rule: No credit beyond declared EFT/stability regime

Ambiguity & Branching

- **Known ambiguities:** Framework-level freedom in GiG_iGi
- **Branching rule:** Mechanism-level verdict requires submodel fixation

Diagnostic Integrity Statement

- No diagnostics have been run
- No interpretation beyond translation applied
- No verdict language present

Auditor Declaration:

"This card fully declares the diagnostic protocol. No criteria will be added post hoc."