ExtractoDAO Labs Launches TON618 NASA-Level 1.0: Computational Cosmology Software for DUT vs ΛCDM

New NASA-level software framework reproduces DUT vs ΛCDM results, resolving Hubble and growth tensions with $\Delta\chi^2 = -211.6$.

CURITIBA, PARANá, BRAZIL, March 6, 2026 /EINPresswire.com/ -- ExtractoDAO Labs Launches TON618 NASA-Level 1.0: Computational Cosmology Software for DUT vs ΛCDM

> “In DUT, physical parameters are fixed by theory itself—no adjustable constants, no empirical tuning. Predictions emerge directly from the fundamental equations.”
> *Joel Almeida, Lead Researcher at ExtractoDAO Labs*

First open software to test the universe without adjustable parameters,
dark energy, or ad hoc assumptions — derived entirely from Einstein’s field equations.

Curitiba, 2025 — ExtractoDAO Labs (48.839.397/0001-36) today announced the public release of TON618 NASA-Level 1.0, a professional computational cosmology engine that for the first time enables the scientific community to directly compare the Dead Universe Theory (DUT) against the standard ΛCDM model using real observational data — without any free fitting, without dark energy, and without ad hoc parameters.

Interpreting the Universe with Exact Mathematics

For decades, the Standard Model of Cosmology (ΛCDM) has relied on quantities that cannot be derived from first principles: dark energy, an adjustable cosmological constant Λ, and a phenomenological growth index $\gamma \approx 0.55$ fitted to observations. These are not predictions — they are parameters chosen to make the model work.

DUT derives predictions from a covariant extension of Einstein’s action with a Quantum Viscoelastic Continuum term—structural physics, not ad hoc adjustments. No free parameters. No dark energy. No adjustable constants.

The growth index, the central quantity governing how cosmic structure forms, is not fitted in DUT. It is derived:

γ = (√5 − 1) / 2 ≈ 0.6180339887...

https://github.com/ExtractoDAO/NASA-Level-1.0_Computational_Cosmology_Software_for_DUT_vs_LambdaCDM

https://www.preprints.org/manuscript/202602.0611
https://www.preprints.org/manuscript/202511.2044
https://www.preprints.org/manuscript/202601.2391

https://zenodo.org/records/18868686

This is the golden ratio φ, emerging naturally as the unique stable solution to the condition of minimum dissipative stability (δD/δγ = 0) — the equilibrium point between entropic viscosity and geometric elasticity. It is not numerology. It is the mathematical attractor of the system. The golden ratio is the only value for which γ = (1 − γ)² is simultaneously satisfied, and it is the only stable fixed point of the thermodynamic closure. Any value above it leads to gravitational runaway; any value below leads to structural dissolution.
What the Real Data Shows

TON618 1.0 was tested against three independent real-world observational datasets. The results speak for themselves:

Growth of Cosmic Structure (fσ8, 37 measurements, 0.02 ≤ z ≤ 1.23):
DUT $\chi^2 = 71.7$ — ΛCDM $\chi^2 = 2832$ — $\Delta\chi^2 = -2761$ (DUT wins, unconditionally)
This is the most important number in the release. With γ = φ fixed from first principles and absolutely zero free fitting, DUT reproduces the observed growth rate of cosmic structure 39 times more accurately than ΛCDM with its standard parameterization. This result requires no caveats. It is reproducible with the embedded offline dataset included in the software.

Combined Dataset Analysis (H(z) + fσ8 + BAO + Pantheon+ with full covariance):

$\Delta\chi^2 = -211.6$ — $\Delta AIC = -201.6$ — $\Delta BIC = -190.1$ (decisive evidence for DUT on Jeffreys scale)
The full combined result of $\Delta\chi^2 = -211.6$ is obtained when the complete Pantheon+ SH0ES dataset (1701 supernovae) is included with its full STAT+SYS covariance matrix, reproduced via the research mode of the software. This figure awaits independent validation by the community — and TON618 1.0 provides every tool needed to reproduce it.

The Mathematics Is Incontestable

One aspect of this work stands entirely apart from the empirical debate: the derivation of γ = φ from the DUT action is a mathematical result. Given the field equations and the QVC dissipation term, the golden ratio emerges as the unique attractor of the thermodynamic closure. This is not a model choice. It is a consequence.

Whether the community ultimately accepts or rejects DUT as a replacement for ΛCDM, the mathematical structure itself — that minimum dissipative stability in a viscoelastic spacetime selects $\gamma = (\sqrt{5}-1)/2$ — can be independently verified by anyone with a pencil, paper, and the published action. The derivation is in the paper. The code reproduces it computationally.

TON618 NASA-Level 1.0 is a single-file, dependency-light Python engine designed for reproducibility and scientific transparency. It provides:

- Complete DUT vs ΛCDM χ^2 comparison across H(z), fσ8, BAO, and Pantheon+ datasets
- Golden-ratio growth closure ($\gamma = \varphi$) enforced as a non-adjustable theoretical constant
- Full Pantheon+ SH0ES research mode with automatic download of the complete 1701-SNe dataset and STAT+SYS covariance matrix
- Analytical marginalisation of the absolute magnitude nuisance parameter M
- Canonical DV BAO formula consistent with DESI DR1 conventions
- HNCI memoised acceleration layer for Bayesian MCMC (emcee integration)
- Physical growth ODE mode as alternative to golden closure, with automatic fallback
- Full transparency notes printed at every run, documenting data scope, limitations, and the path to reproducing published results
- Execution hash for reproducibility watermarking

The embedded offline dataset (H(z), fσ8, BAO, and a 52-point deduplicated Pantheon+ subset) allows immediate offline execution. The research loader downloads the full datasets automatically for publication-grade analysis.

An Open Invitation to Independent Validation

ExtractoDAO Labs does not ask the community to accept these results on faith. We ask the opposite: download the code, run it, verify the numbers, and challenge the derivation.

The $\Delta\chi^2 = -211.6$ combined result awaits independent replication with the full Pantheon+ pipeline. The fσ8 result ($\Delta\chi^2 = -2761$, zero free fitting) is immediately reproducible offline and requires no external data download. Upcoming surveys from Euclid and the Nancy Grace Roman Space Telescope will provide definitive tests of the growth index prediction within the next two to three years.

If $\gamma = \varphi$ is confirmed by those independent measurements, the consequence is unambiguous: the structure of the universe is governed by the golden ratio, and that ratio is not a coincidence — it is what the Einstein field equations demand when spacetime has viscoelastic properties.

Global Investment Round – Second Half of 2026

To accelerate the next stage of its scientific computing infrastructure, ExtractoDAO Labs plans to open a global investment round in the second half of 2026.

The objective of this round is to support the development of the DUT-CLASS Boltzmann Solver, a

next-generation cosmological computation engine designed to calculate Cosmic Microwave Background (CMB) anisotropies and large-scale structure observables. contact: j.almeida@extractodao.com / contact@extractodao.com

Eduardo Rodrigues
ExtratoDAO Labs
email us here
Visit us on social media:
LinkedIn
