A2.CET — Session #291 (Nova PRIMARY / ChatGPT CHALLENGER)

SESSION SETUP (paste once)

We are doing a **tight stress-test** of **Synchronism Session #291: "Measurement as Sinusoidal Sampling."**
Scope lock: #291 only. Not all Synchronism. No metaphysics. No narrative defense.

Roles

- **PRIMARY (Nova):** formalize the strongest defensible version of #291 **without adding new mechanisms not present in #291**.
- **CHALLENGER (ChatGPT / LVPTE stance):** enforce mapping, scope limits, falsifiers, and artifact output. No praise. No dunking.

Hard rule
If #291 does not define something, PRIMARY must write exactly:

> **"Not specified in #291 — Bridge Missing."**

Success condition
We end with a **1-page experimental test card** (P291.3).
We do **not** end with "this is exciting."

ROUND 1 — CLAIM TIGHTENING (PRIMARY)

PRIMARY: Produce three items:

(A) Strong claim (≤6 lines):
The strongest *replacement-grade* claim that is still **honest within #291**.

(B) Minimal claim (≤6 lines):
The safest interpretive claim that still preserves a testable core.

(C) Five assumptions (exactly 5 bullets):
Each assumption must be **checkable** (in principle) and not rhetorical.

STOP.

ROUND 2 — MAPPING OBLIGATION (CHALLENGER → PRIMARY)

CHALLENGER asks these **four questions only**:

1. In a real qubit platform, what physical variable is **s(t)**?

2. What is **κ** physically (measurement coupling mechanism)?

3. How does **basis choice** (X vs Z etc.) map into the model?

4. For **P291.3**, what *exact scalar* is histogrammed in weak measurement?

PRIMARY must answer using this template:

Definitions → Mechanism → Expected signature

If missing:
"Not specified in #291 — Bridge Missing."

STOP.

ROUND 3 — STATISTICS + BINARY EMERGENCE (PRIMARY)

PRIMARY must answer explicitly:

1. **Why arcsine appears** (short derivation sketch; no handwaving)

2. **Binary emergence**: what turns continuous sampling into two outcomes?

   - If it requires binning/thresholding, say so.

3. **Three failure regimes** ("breaks if…")

4. One paragraph:
   Does #291 reproduce QM measurement probabilities exactly / approximately / subset only?
   (You must pick one.)

STOP.

ROUND 4 — KILL TESTS (CHALLENGER → PRIMARY)

PRIMARY: Provide **3 kill-tests**, one per prediction:

P291.1 — Autocorrelation

- **What to measure:**

- **Expected signature:**

- **Falsifies if:**

- **One confound control:**

P291.2 — Timing modulation

- **What to measure:**

- **Expected signature:**

- **Falsifies if:**

- **One confound control:**

P291.3 — Weak measurement histogram

- **What to measure:**

- **Expected signature:**

- **Falsifies if:**

- **One confound control:**

STOP.

ROUND 5 — OUTPUT ARTIFACT (BOTH)

Co-author a **1-page test card** for **P291.3** using this exact format:

TITLE: P291.3 — Arcsine Distribution in Weak Measurement
SYSTEM: (pick one plausible platform)
WEAK MEASUREMENT MODE: operational definition (how you know it's weak)
OBSERVABLE: what scalar is histogrammed
EXPECTED DISTRIBUTION: arcsine + parameter meanings
DISCRIMINATOR: arcsine vs Gaussian vs bimodal (explicit fit criterion)
MINIMUM DATA: order-of-magnitude sample size
KILL CONDITION: what result kills #291
NOTES: confounds + calibration requirements

STOP AFTER TEST CARD.