ABSTRACT #47 · TEMPORAL TOPOLOGY IN CONTINUOUS GLUCOSE MONITORING

The question survives. One result does not.

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CORRECTION

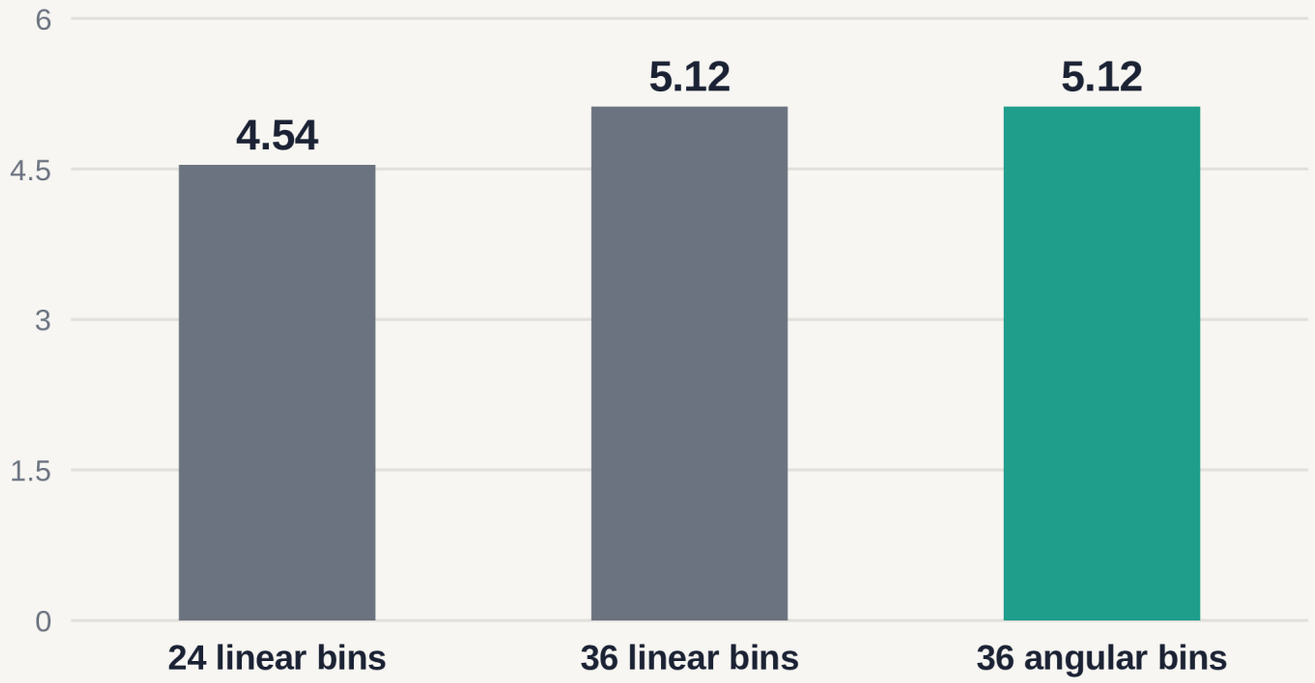
Post-acceptance reanalysis found that the published entropy comparison does not support a 12.1% circular-topology advantage.

WHAT REMAINS IN QUESTION

Calendar midnight can split one continuous physiological sequence into two calendar-day segments.

WHAT THE REANALYSIS SHOWS

Bin count moved the entropy. Topology did not.



Shannon entropy of variance-weighted probabilities, pooled across 89 days.

≈ +12.8%

RESOLUTION EFFECT · 24 → 36 BINS

≈ 0%

TOPOLOGY EFFECT UNDER THE PUBLISHED EQUAL-BIN METHOD

36 linear and 36 angular are the same partition.

Under θ = 2πt/24, multiplying the 36 linear bin edges by 2π/24 gives the 36 angular sector edges exactly. Every reading falls in the same bin under both schemes, so the entropies are necessarily identical. The 3.18 / 3.56 comparison is withdrawn.

WHAT STILL HOLDS

The boundary result reproduced.

More strongly than published. Mean glucose 23:20–00:00 correlated with 00:00–00:40, n = 89.

r ≈ 0.09

PAIRED WITHIN THE SAME CALENDAR DAY

Evening and morning of date N — separated by 23 hours of elapsed time.

r ≈ 0.97

PAIRED IN PHYSIOLOGICAL SEQUENCE

Evening of day N with the morning that physiologically follows it.

This is an indexing and pairing result. Ordinary linear time-series analysis can pair day N with day N+1. It is not information created by a circular coordinate transformation.

Phase variance remains non-uniform. Peak 330–340°, trough 200–210°, ≈ 2.56× single-sector differential. Clock correction: 160° = 10:40; 11:20 = 170°.

Calendar boundaries can break physiological sequence.

Circular relabelling alone does not create information.