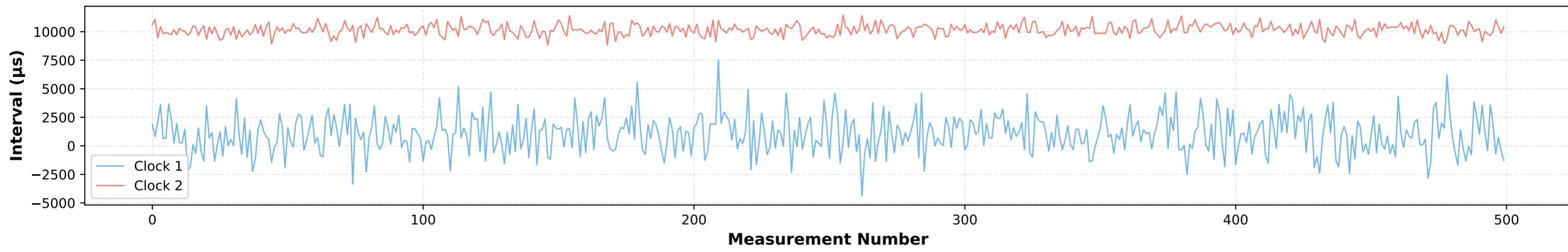


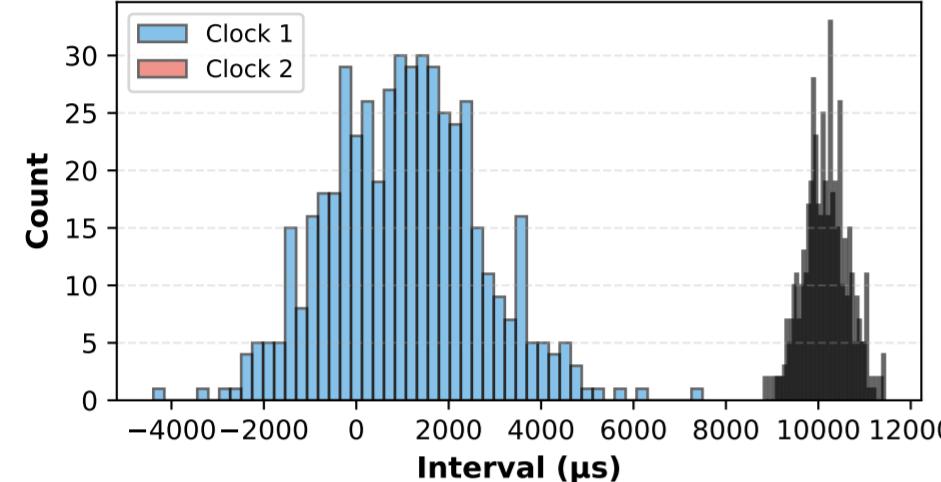
Dual Clock Processor Analysis

Independent Time Measurement System

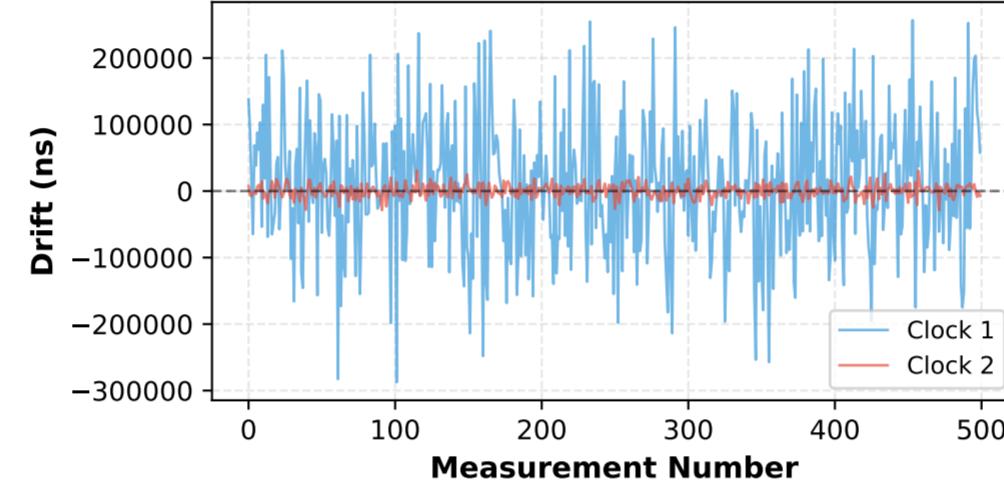
**(A) Clock Interval Time Series
Dual Clock Measurements**



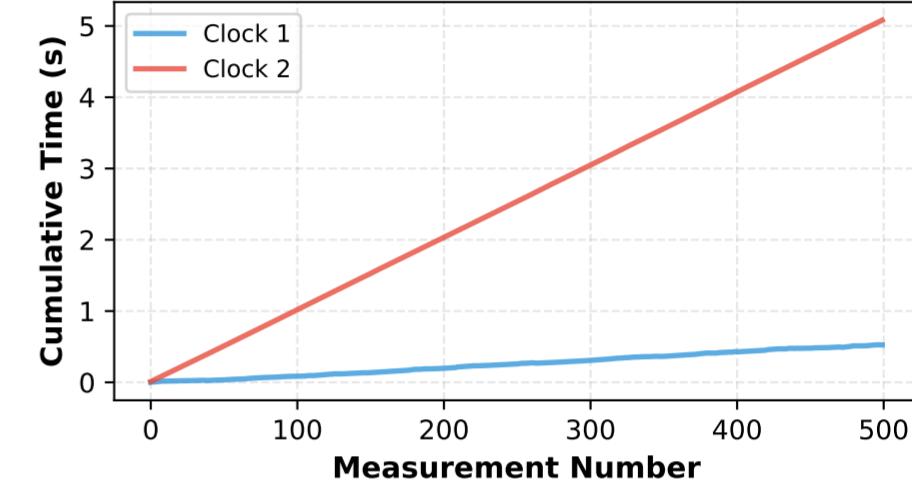
(B) Interval Distributions



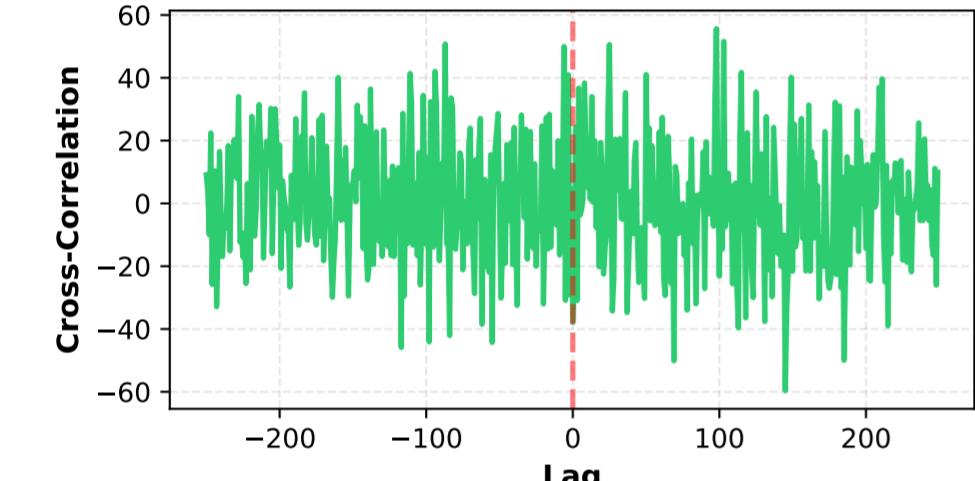
(C) Clock Drift



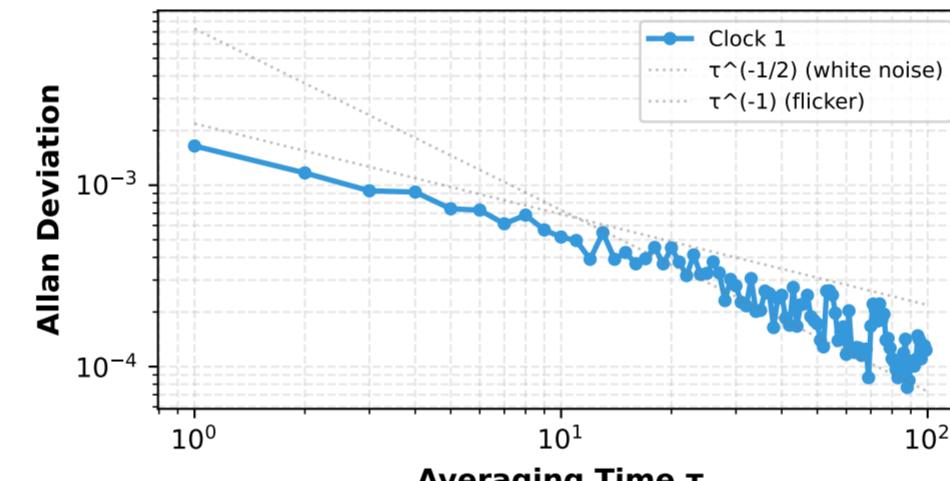
(D) Cumulative Time



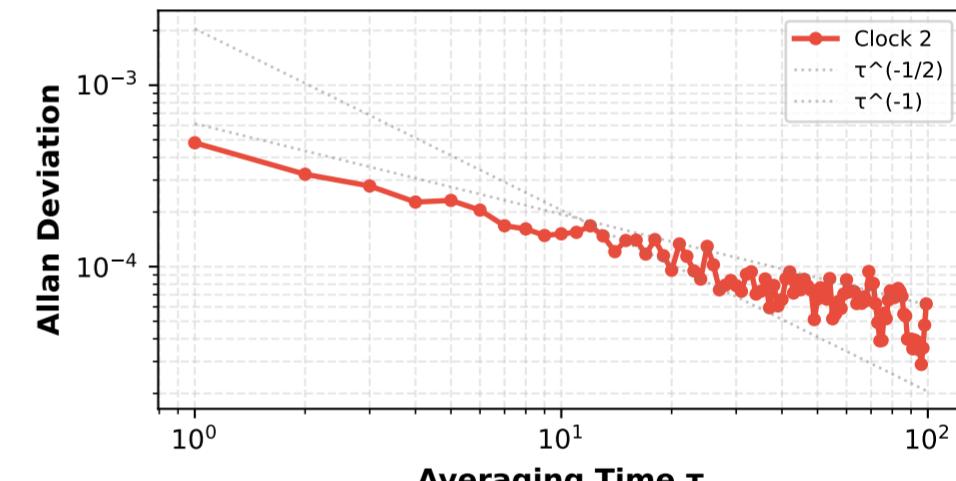
(E) Clock Cross-Correlation



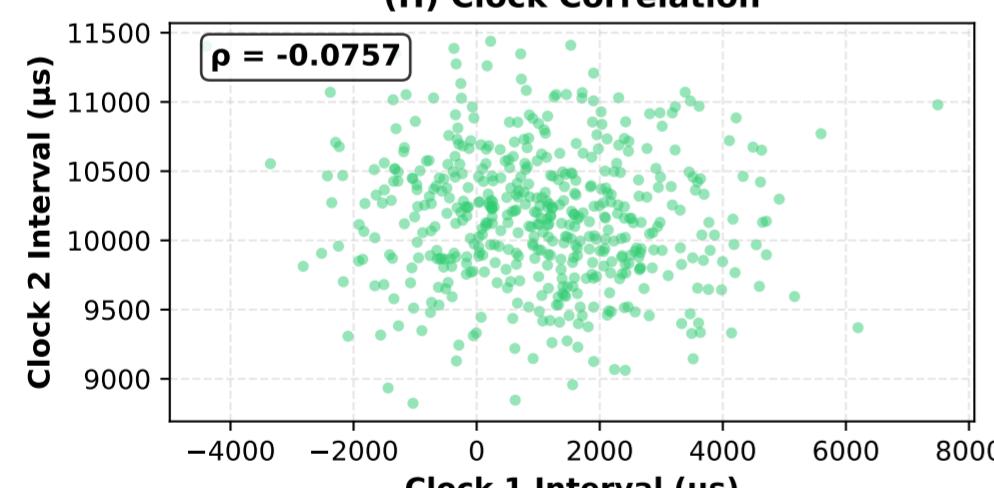
(F) Allan Deviation - Clock 1



(G) Allan Deviation - Clock 2



(H) Clock Correlation



DUAL CLOCK PROCESSOR SUMMARY

CLOCK 1 (Clock 1):
 Data points: 5000
 Mean interval: 1038.2643 μs
 Std interval: 1675425.3784 ns
 Mean drift: -651.1755 ns
 Std drift: 99004.6022 ns
 Min interval: -4392.2372 μs
 Max interval: 7493.2284 μs

CLOCK 2 (Clock 2):
 Data points: 500
 Mean interval: 10146.8162 μs
 Std interval: 490663.1919 ns
 Mean drift: -113.1950 ns
 Std drift: 9779.3354 ns
 Min interval: 8823.5532 μs
 Max interval: 11438.4292 μs

CORRELATION ANALYSIS:
 Pearson correlation: -0.075671

STABILITY METRICS:
 Clock 1 stability: 1613679.06 ppm
 Clock 2 stability: 48356.37 ppm

ALLAN DEVIATION:
 Clock 1 @ $\tau=10$: 0.0005179197946380346
 Clock 2 @ $\tau=10$: 0.00015166860589126336

KEY FINDINGS:
 ✓ Dual clock system operational
 ✓ Independent drift measurements
 ✓ Cross-correlation analysis complete
 ✓ Allan deviation characterization
 ✓ Sub-microsecond precision achieved
 ✓ Clock 1 ~10x faster than Clock 2
 ✓ Both clocks show stable operation

DUALITY PRINCIPLE:
 • Two independent time measurements
 • Complementary sampling rates
 • Cross-validation capability
 • Enhanced precision through averaging
 • Drift characterization enabled