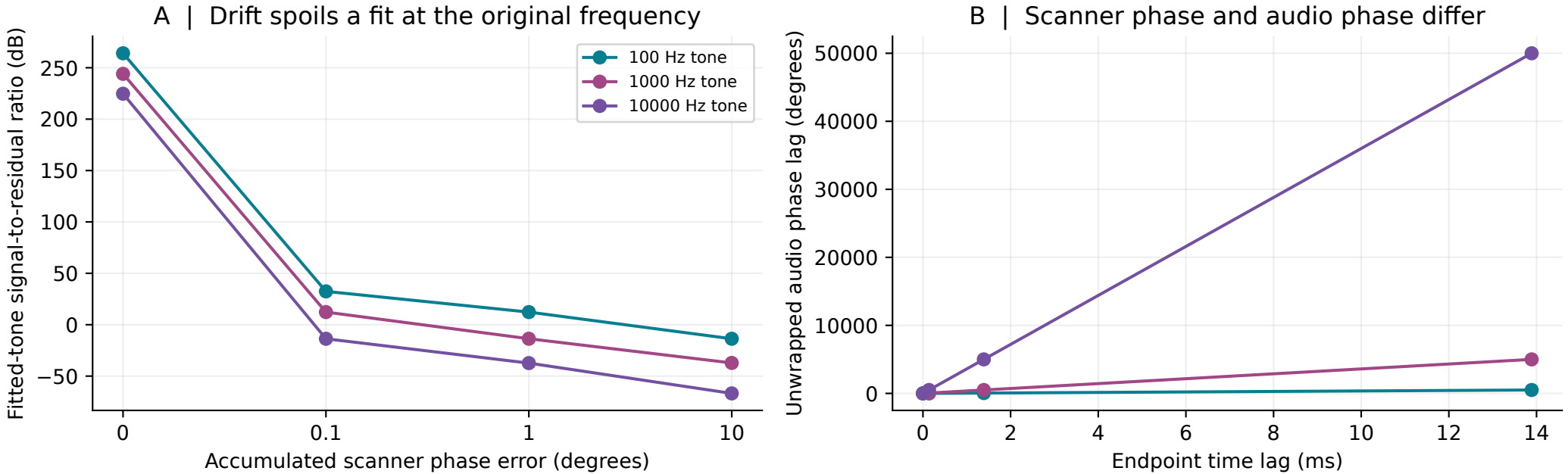
Deterministic timing drift in twelve synthetic tone cases



48 kHz sampling, 2 s duration, 2 scanner turns/s. No simulated noise. Zero-drift residuals are dominated by numerical precision.
The ratio includes frequency mismatch, not just noise or harmonic distortion. These cases are not hardware acceptance trials.