

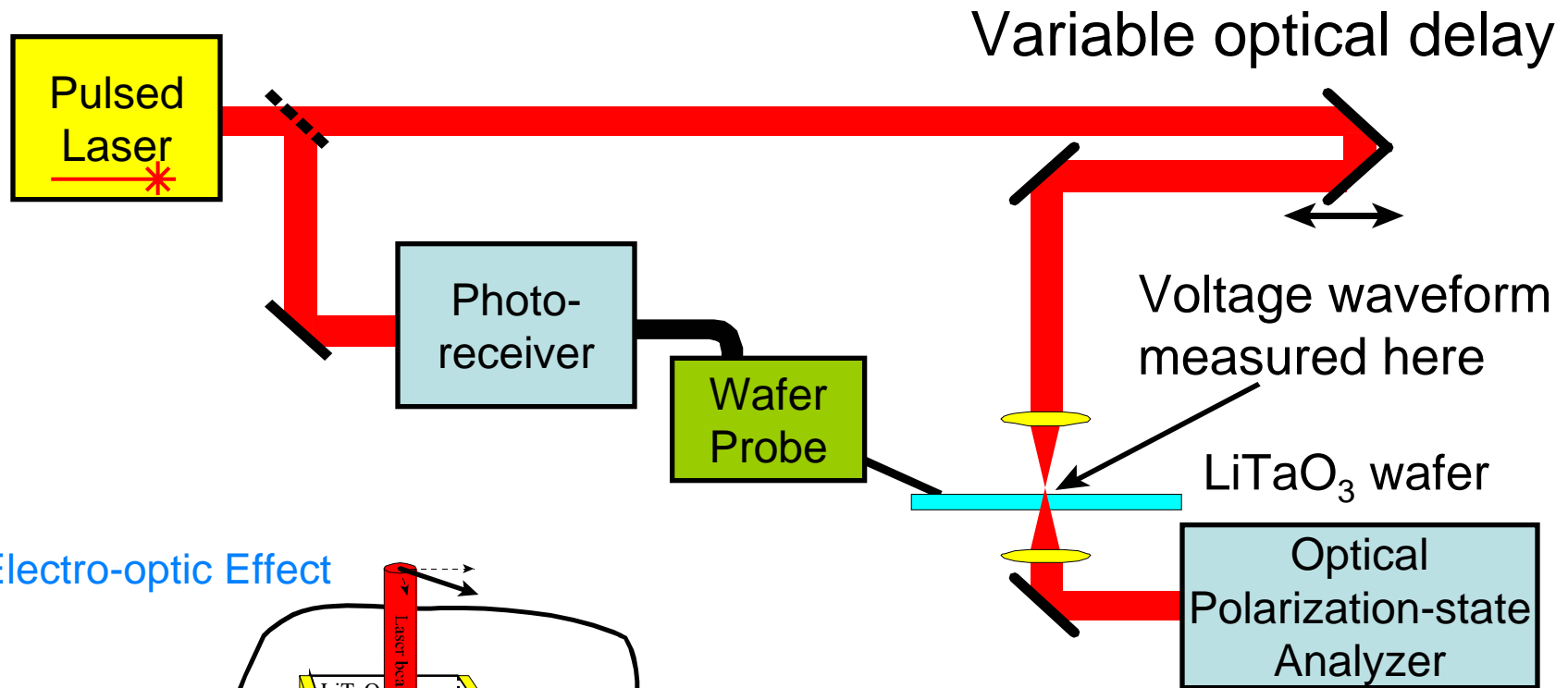
Electrical-phase Traceability to NIST's EOS System

Dylan Williams
Electromagnetics Division

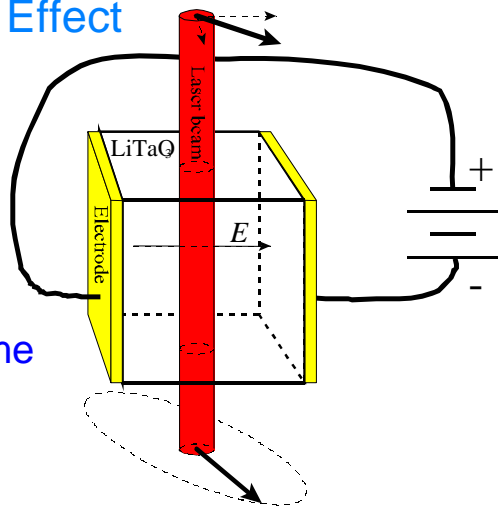
Paul Hale and Tracy Clement
Optoelectronics Division



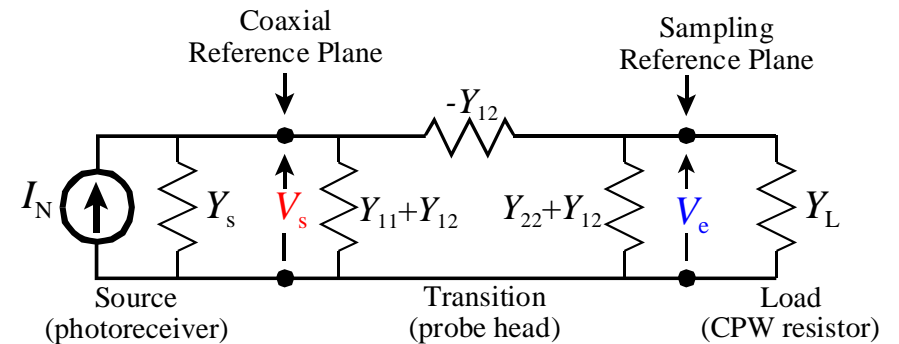
NIST's EOS System



The Electro-optic Effect

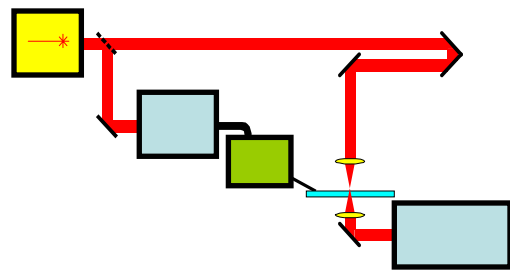


Intrinsic response time less than 10 fs.

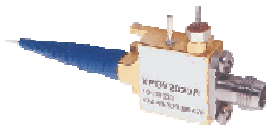


NIST-Traceable Photoreceivers

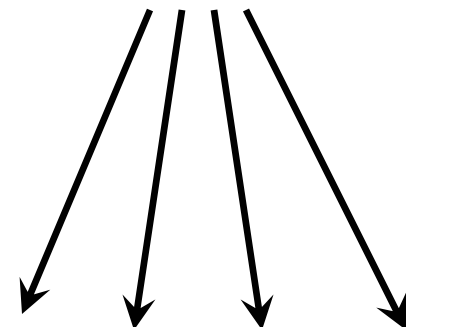
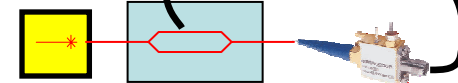
LCA Transfer System



EOS System

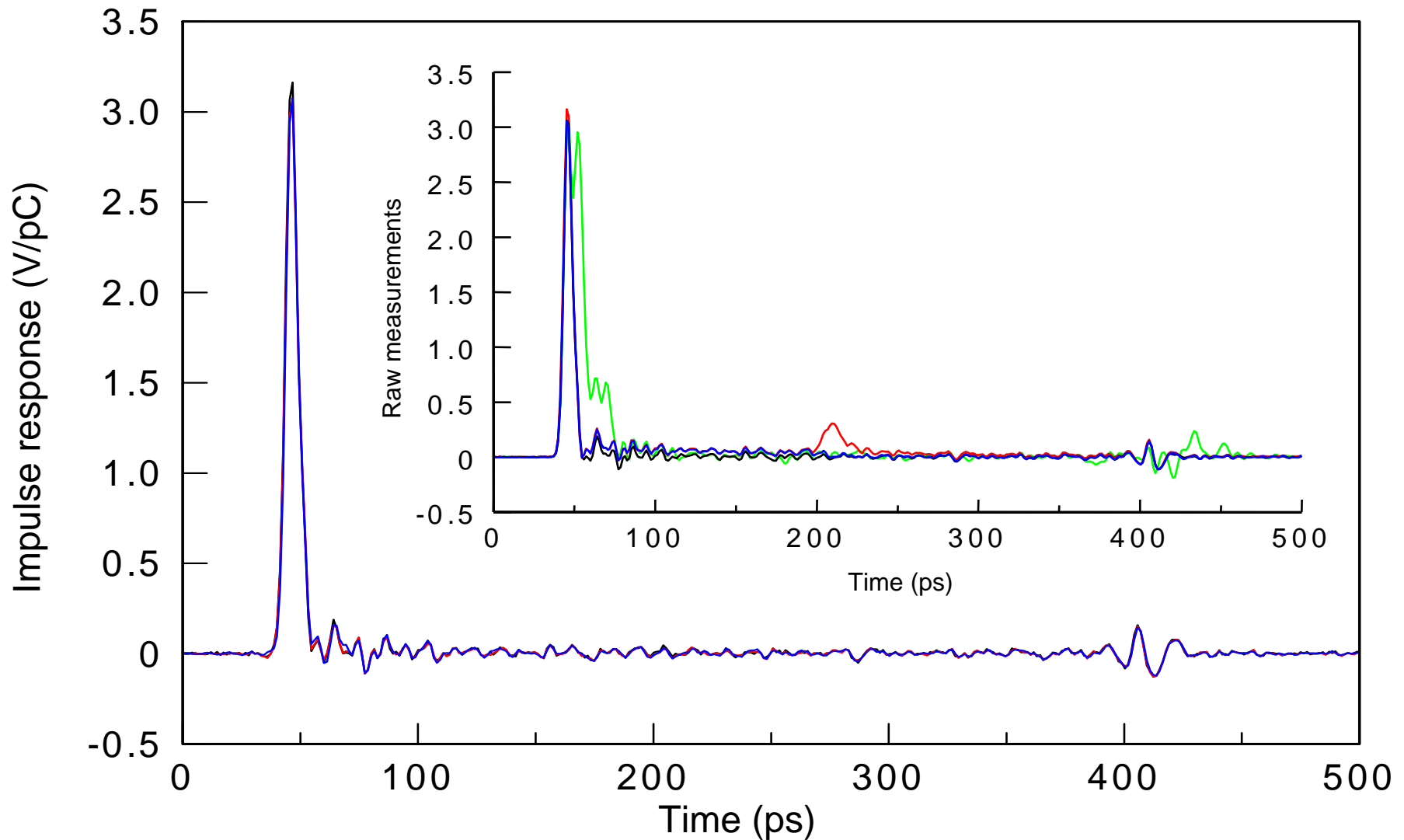


NIST
Photoreceiver

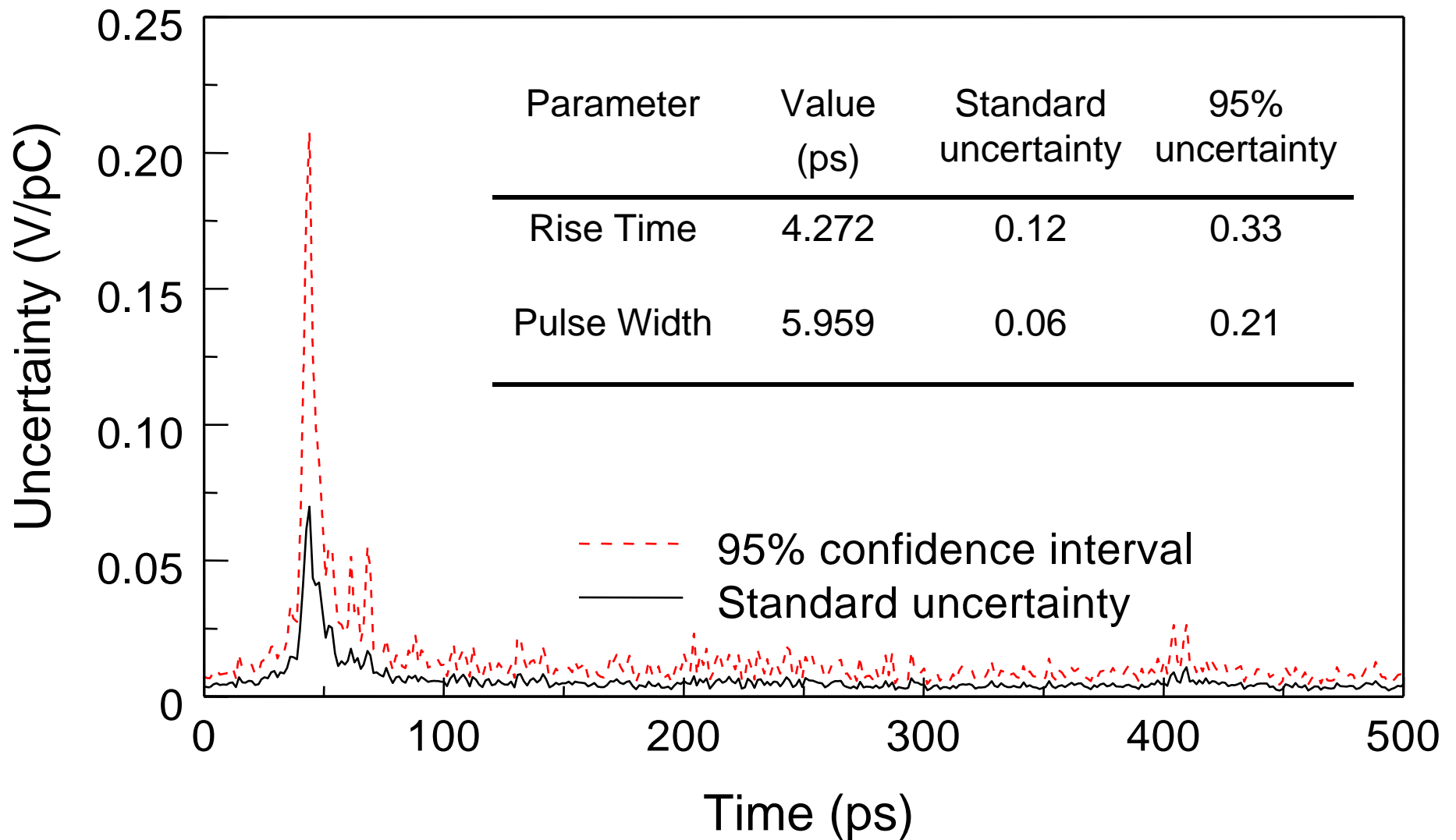


Calibrated Commercial
Photoreceivers

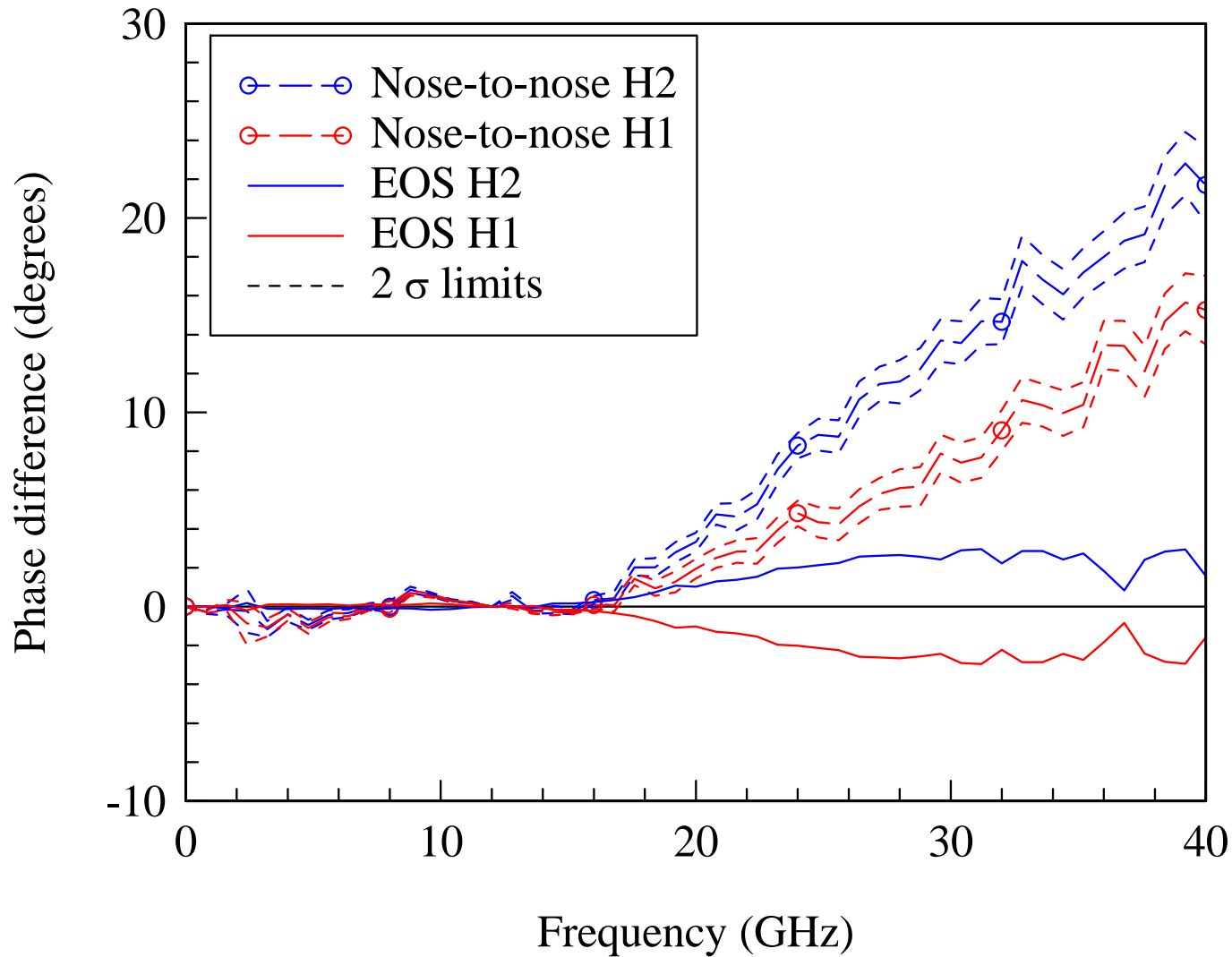
200 GHz Mismatch-Corrected Waveform Measurements



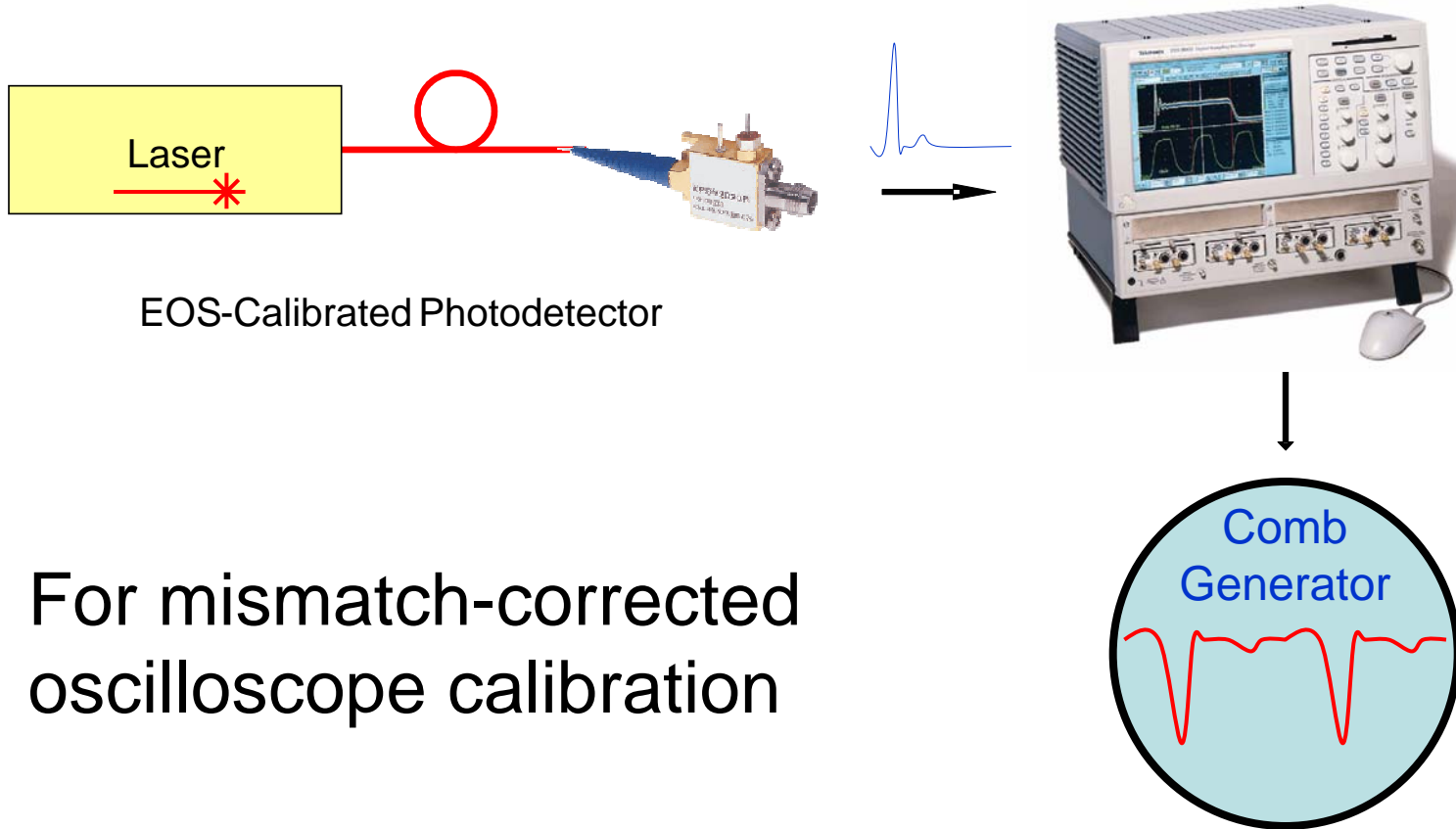
Temporal and Frequency-Domain Error Analysis



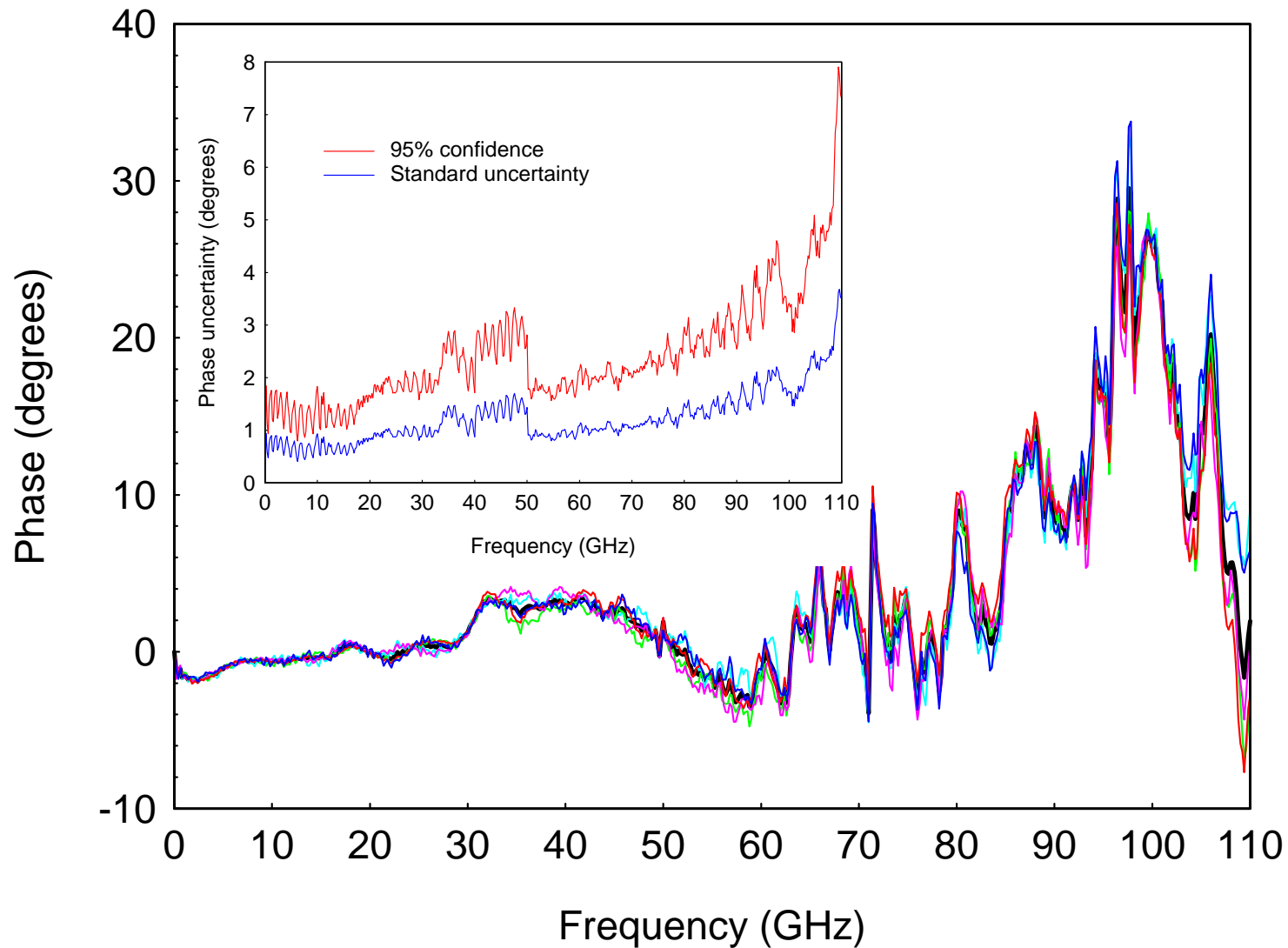
Current LSNA Phase Calibration



NIST Rent-a-Pulse Program



Phase Accuracy of NIST Pulses



Improving Phase Accuracy

