

Atomic Displacement Metrology

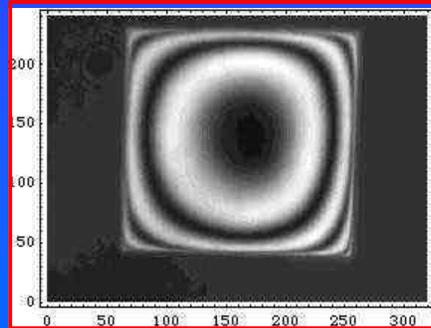
Project Leader: Thomas LeBrun

2001 Deliverables

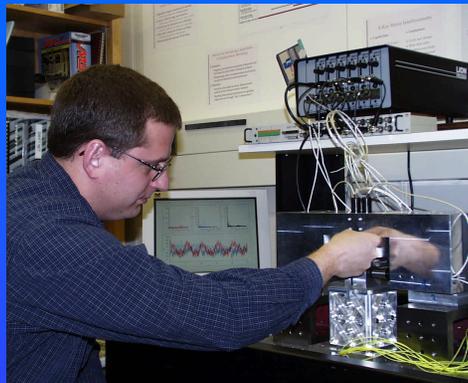
- Complete the necessary research and develop a vacuum chamber and fine stage to compensate for errors for the Atomic Displacement Metrology (ADM) testbed including a control system for the 6 DOF stage and to install an x-ray interferometer in the 50 mm test bed chamber.

Customers and Collaborators

- Stuart Smith, Rich Seugling, Precision Engineering Center, University of North Carolina at Charlotte
- Tim Thompson, Steve Ney, Eric Ponslett, Hytec Inc., Los Alamos, NM
- David Trumper, MIT



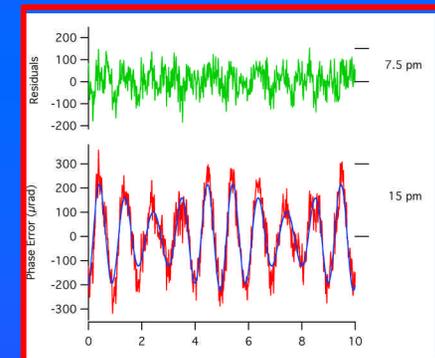
X-ray interferometer is tested to ensure flatness.



Testing the six-degree-of-freedom fine stage and the phasemeter array.

FY 2000 Accomplishments

- Vacuum Isolation system delivered and under construction.
- XRI alignment system built and ready for test.
- Phasemeter array attains 15 pm errors.



- Six-degree-of-freedom Fine stage delivered and tested.
- Next Generation LSI being built next to current LSI.