

# PhotonMEADOW 2023

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## Stitching Interferometer at PAPS

We have established a new optical metrology laboratory belonging to the Platform of Advanced Photon Source (PAPS) technology R&D project located in Beijing. PAPS provides strong support for construction, testing and technology R&D for the High Energy Photon Source (HEPS). The optical metrology laboratory has proposed and developed a variety of optical metrology technologies with high accuracy to support the construction of beamlines in HEPS. In this optical metrology laboratory, we have independently developed the scanning and stitching interferometer platform system with high stability and high-accuracy metrology performance. We proposed and verified two methods based on angular measurement 7 years ago. Recently, based on this new stitching system at PAPS, another novel stitching method has been proposed and verified. The accuracy of two-dimensional surface profile measurement is as high as 0.1-0.3nm RMS.

### Journal of Synchrotron Radiation Special Issue: will you submit your contribution?

no

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