

X-RAY DIAGNOSTICS COMMISSIONING AT THE LCLS

J.J. Welch, SLAC, Menlo Park, California, USA

Abstract

This talk is about the experience gained in commissioning the X-Ray diagnostics at the LCLS over the past year. Though the designs of the diagnostics are based largely on technology from synchrotron light sources, the high intensity and high brightness of LCLS X-Ray beam are well outside of the range of parameters for synchrotron light sources, so the diagnostics must perform in essentially new territory. It turned out that some capabilities of the diagnostics were not utilized because the FEL beam was so strong right from the beginning. On the other hand, in some cases the diagnostics were used to perform novel measurements that were not envisioned in the original design. The talk will cover each of the diagnostics systems, how it performed, and what it told us about the FEL beam.

**CONTRIBUTION NOT
RECEIVED**