MATTER AND TECHNOLOGIES

Contribution ID: **110** Type: **Poster with speed talk**

Characterisation of a fast-gated ICCD camera with synchrotron light at BESSY II

Monday 9 October 2023 18:30 (5 minutes)

To meet the requirements of different users, modern storage ring light sources, including BESSY II, use complex filling patterns. For this reason, there is a need for beam diagnostics with bunch resolution. At BESSY II, longitudinal bunch-resolved diagnostics have been made possible by the use of a streak camera, which uses the visible light of a bending magnet. To complement the bunch-resolved diagnostics at BESSY II, a fast-gated ICCD camera has been installed on a nearby beamline connected to the same dipole magnet. This camera enables bunch-resolved transverse diagnostics through direct imaging as well as interferometry with visible light. After an upgrade regarding the repetition rate, now the maximum illumination rate exceeds the BESSY II revolution frequency of 1.25MHz. This poster presents the characterisation of optical magnification, spatial resolution, and time resolution of the fast-gated ICCD camera. Furthermore, results of initial measurements will be presented

Speed Talks

Normal

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Session Classification: Plenary III - Speedtalks

Track Classification: Detector Technologies and Systems