

# Electron and X-Ray Beam Stability Review

## Charge

1. Assess the level of beam orbit stability (high-, low frequency ranges and slow drifts) currently achieved at NSLS-II in routine operations and compare it with that at your home facilities.
2. Present a summary of noise sources identified at the sites of your facilities and the corresponding methods of its suppression.
3. Present your outlook at future goals in the area of beam stability in synchrotron light sources.
4. Is monitoring of the beam orbit / size stability is sufficiently detailed at NSLS-II?
5. Assess the suite of beam instrumentation developed at NSLS-II and summarize future developments required to secure high stability of electron and photon beams.
6. Assess efficiency of orbit feedbacks developed at NSLS-II and comment on the related development plans.
7. Advise on required (but yet missing) instrumentation and feedbacks that may lead to substantial improvements in the area of beam stability at NSLS-II.