



High-Brightness Synchrotron Light Source Workshop

Summary

With the modern advances in designing, manufacturing and testing of the magnets, power supplies, RF components and diagnostics our machines rapidly evolve and interlaboratory communication may lead to fruitful collaborations on the subsystem upgrades. Thus we are opening floor for conversations and exchange of experience on novel concepts in BPM systems, PS controls, magnet alignment, etc., as well as improving beam stability via suppression of mechanical noises and electrical transients.

Reliability of operations is crucial for modern light sources and various machine subsystems have adverse impact on the beam time available for users. Remedies range from providing sufficient redundancy in the troublesome components, switching to more reliable designs and components to maintaining sufficient set of hot spares and to reducing MTTR by developing complete units for fast swaps. During the workshop, we will be focusing on the recent findings of measures to increase reliability and decrease downtime.

With short presentations delivering the status, issues and plans for upgrades from a number of the sister facilities, working groups will be assembled to capture the points raised during talks and discussions, to be summarized at the end of the second day.

The groups will focus on the following topics:

- (i) Tools and methods of machine operations,
- (ii) Advances in machine subsystems,
- (iii) Lattice solutions towards high brightness, and
- (iv) High current operations and collective effects.

In summary the HBSLS Workshop will serve several purposes.

- Designing, building, commissioning and operating modern and future light sources;
- Practical aspects of light source operations (control room tools, feedbacks, interlocks);
- Comparison between options of green field, in-situ and gradual (low-scope) upgrades; and
- Expansion of light source capabilities (advanced IDs, additional timing modes, orbit feedbacks).