

User Requirements

- “Global” enhancements:
 - High(er) stability
 - Reasons for this should be clear
 - “Positional” stability important (not value of current)
 - R&D for this is currently in progress
 - At some point need to look at cost/benefit of increasing stability
 - Reduction in horizontal emittance
 - Can we have a 3.5 nm-rad lattice with no dispersion?
 - How low can we go?

User Requirements

- There was less interest in:
 - Higher currents
 - Major concern is degradation in the performance of optics (my guess is this is not a major problem - we will see)
 - Further reduction in coupling (vertical emittance)
 - This is now at a level where there is minimal benefit for further reduction (due to optics limitations and other issues)

User Requirements

- “Customizing” the radiation for their specific needs, this seemed to be tantalizing:
 - Optimized IDs
 - Different periods (more flux with less power)
 - Multiple IDs (same or different period)
 - Very long IDs (5-10m) (photon hungry experiments)

User Requirements

- “Customizing” the radiation...
 - Local “control” of beta functions
 - Small source size for imaging
 - Small divergence for better $\Delta E/E$ ($= \cot\Theta \Delta\Theta$) and sometimes better optical performance

Other Recommendations

- Stick to the 2 min interval for top-up (at least for a little while longer)
- Higher single bunch current should be explored to see what the trade-offs are:
 - Longer bunch
 - Increased emittance (of just that bunch?)
 - Etc. (a 10 m straight could give 4 x increase for a given single bunch current)