

Group A: Filling Patterns

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A few guiding questions for the Group Discussion and Summary on Filling Patterns

- Advantages/disadvantages with using harmonic cavities or/and feedback systems to damp instabilities?
- Can the current distribution in the machine be optimized to increase the bunch lengthening with gaps in the filling pattern? Have this any significant effect on the lifetime?
- Can anything be said about the damping of instabilities by just looking at the increase in bunch length or is it necessary to include impedance calculations in the simulations from start?
- How important is the effect of beam loading in the main cavities when having gaps in the filling pattern?
- Advantages/disadvantages of 100 MHz/500 MHz RF system?
- How is the users affected by a current and bunch length variations along the bunch train? Can this be solved at the beamlines?
- The possibility to vary the length of the camshaft by placing it at different positions in the gap. Is it used in practice? Does this add or reduce flexibility for the users?
- Can the problem of sample damage due to too high intensity from a single bunch be related to experiments using a certain photon energy range?
- Is there a bunch purity (camshaft vs. gap) below which timing experiments cannot be considered at all?