## Review of extraction line designs: Topics

- Goal: compare 14 mrad, 2 mrad and head-on extraction designs.
- General requirements for the extraction line design.
- Advantages/disadvantages of small/large crossing angles: beam separation, beam transport, crab-cavity, solenoid anti-DID, impact on detector.
- Snapshot of the latest extraction optics (mostly from LCWS).
- Primary electron and beamstrahlung beam transport lines.
- Impact of crossing angle on the FD magnets.
- Other special magnets, electrostatic separators.
- Feasibility of extraction diagnostics: energy, polarization, GamCal.
- Disrupted beam power loss: summary of tracking results, solenoid effect, offset beams.
- Collimation schemes and dumps.