



Status – Beam Induced Backgrounds



- Our accelerator colleagues updated the parameter table, let the bunch spacing at same baseline frequency.

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| | Higgs | Z | W | tt |
|--|--------------------|------------------|--------------------|---------------------|
| SR power per beam (MW) | 50 | | | |
| Half crossing angle at IP (mrad) | 16.5 | | | |
| Energy (GeV) | 120 | 45.5 | 80 | 180 |
| Bunch number | 446 | 13104 | 2162 | 58 |
| Bunch spacing (ns) | 346.2 (54% gap) | 23.1 (9% gap) | 138.5 (10% gap) | 2700.0 (53% gap) |
| Bunch population (10^{11}) | 1.3 | 2.14 | 1.35 | 2.0 |
| Luminosity per IP ($10^{34} \text{ cm}^{-2} \text{ s}^{-1}$) | 8.3 | 192 | 26.7 | 0.8 |

- The simulation will based on CEPC 50MW TDR parameters.
 - Higgs under analysis by sub-detectors, results will come later this week.
 - Z-pole single beam simulation started.
 - The crotch section of the beampipe are hotspots. Optimization needed.