

## Analysis of the beam background for TPC at the high luminosity Z pole on CEPC

The Circular Electron Positron Collider (CEPC) and Future Electron Positron Circular Collider (FCCee) were been proposed as a Higgs and high luminosity Z factory in last few years. Aimed to Higgs and the flavor physics requirements, the tracking system required the high precision performance, including the spatial resolution, the momentum resolution and the good particle identification detection (PID).

TPC detection technology also required the longitudinal time resolution of about 100ns and the physics goals require the very good separation power with the cluster counting to be considered. The simulation and PID resolution show TPC technology potential to extend Tera-Z at the future e+e- collider. In this talk, the feasibility and status of high precision TPC as the main track detector for e+e collider will be presented. The simulation results of the updated beam background from MDI group in CEPC community.

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