

## Application for the student session

**Presentation title:**

Study of new longitudinal injection method based on crab cavities for electron storage ring

**Abstract:**

The diffraction limited storage ring with Multi-Bend Achromat lattice suffers from small dynamic aperture for conventional off-axis injection. A new longitudinal injection method based on new type of crab cavities was proposed. Particle tracking simulations have been used to study the disturbance of stored beam and the motion of injection beam in the process of injection. The disturbance was in an acceptable range by adjusting injection parameters and the injection efficiency can reach 100%.

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