



Contribution ID: 935 Contribution code: WEPL164

Type: **Poster Presentation**

## **Study of beam-beam interaction in FCC-ee including updated transverse and longitudinal impedances**

*Wednesday, 10 May 2023 16:30 (2 hours)*

Beam-beam interaction in FCC-ee can be seriously affected by the vacuum chamber coupling impedance resulting in a safe tune areas reduction, tune shifts and spread, bunch length and energy spread variation. The interplay of the two effects have a drastic impact on the stability of colliding bunches and respectively on the achievable luminosity. In this paper beam-beam collisions in FCC-ee with 4 interaction points are studied including the updated transverse and longitudinal impedances.

### **Funding Agency**

### **Footnotes**

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Yes

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**Session Classification:** Wednesday Poster Session

**Track Classification:** MC5: Beam Dynamics and EM Fields: MC5.D10: Beam Beam Effects Theory, Simulations, Measurements, Code Developments