



Contribution ID: 466

Type: **Presentation**

Luminosity with $e^+e^- \rightarrow \gamma\gamma$: theory perspective

Tuesday, June 25, 2019 5:30 PM (30 minutes)

The unprecedented precision goal of the future FCC-ee machine in key measurements in the Standard Model and beyond will require that the accelerator luminosity is known with extremely high accuracy, at the 10^{-4} level and even better. In this context, QED processes (and their accurate theoretical prediction) play the role of precise luminosity monitoring processes: together with the standard Bhabha scattering, used in the past at LEP and flavour factories, it is interesting and worthwhile to consider also the $e^+e^- \rightarrow \gamma\gamma$ process, which, despite a lower statistics than Bhabha, can be predicted with very high accuracy. In this presentation, the current status of $e^+e^- \rightarrow \gamma\gamma$ calculations and Monte Carlo tools will be reviewed and the perspective for future theory improvements will be traced and discussed in detail.

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Session Classification: FCC physics, experiments & detectors

Track Classification: Physics