



Contribution ID: 139

Type: Oral presentation using Zoom

Merging of ISR and EPA structure functions with matrix element calculations

Thursday, 28 October 2021 20:12 (24 minutes)

One of the challenges in times of preparing for a next large-scale collider is to properly model its performance. For physical analyses, event generation of signal and background events is often crucial to estimate discovery reach of the machine for New Physics. In many cases, not only should beam collision background samples be analysed, but also there is a need to include background events produced in other ways. At $e+e-$ colliders, a significant part of the generated background samples can require usage of photon structure functions. Even though the ISR and EPA functions are widely used for this purpose, one should be aware of their constraints. In my talk, I will show why this issue can be important for ILC physics potential studies and I will present possible approaches to merging of the structure functions with full matrix element calculations.

1st preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 PDT)

2nd preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

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Session Classification: K&I: Modeling & precision theory & Electroweak physics

Track Classification: Parallel sessions: Topical Groups: Session K: Modeling & precision theory