

# DPF-PHENO 2024

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## Pair Production and Hadron Photoproduction Backgrounds at Cool Copper Collider (C3) accelerator

*Monday 13 May 2024 15:00 (15 minutes)*

Electron-positron pair production and hadron photoproduction are the most important beam-induced backgrounds at linear electron-positron colliders. Predicting them accurately governs the design and optimization of detectors at these machines, and ultimately their physics reach. With the proposal, adoption, and first specification of the C3 collider concept it is of primary importance to estimate these backgrounds and begin the process of tuning existing linear collider detector designs to fully exploit the parameters of the machine. We will report on the status of estimating both of these backgrounds at C3 using the SiD detector concept, and discuss the effects of the machine parameters on the preliminary detector and electronics design.

### Mini Symposia (Invited Talks Only)

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