



Contribution ID: 90

Type: **not specified**

Towards a sustainable design of future colliders

Monday 12 May 2025 18:15 (30 minutes)

Particle physics is entering an era where the environmental impact of large-scale facilities must be evaluated, alongside their cost and physics output. In this talk, we explore the carbon footprint of proposed future collider projects, focusing on strategies to mitigate emissions without compromising physics goals. Using recent studies as a case study, we outline a methodology to quantify and compare the environmental cost of future e^+e^- proposals—accounting for both construction and operation. This approach offers a framework for integrating environmental responsibility into the design and evaluation of next-generation particle physics experiments.

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Session Classification: Invited Talk