

# QCD@LHC2022

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## QCD at future e+e- colliders

*Friday 2 December 2022 16:50 (30 minutes)*

The Future Circular Collider (FCC) is a post-LHC project aiming at direct and indirect searches for physics beyond the SM in a new 90-km tunnel at CERN. Running in its first phase as a very-high-luminosity electron-positron collider in the range of center-of-mass energies  $\sqrt{s} = 90\text{--}350$  GeV, the FCC-ee will offer unparalleled physics opportunities for precise measurements of QCD phenomena in a very clean environment through, literally, billions of hadronic final states. The FCC-ee perspectives for (i) permille extractions of the strong coupling  $\alpha_S(m_Z)$  via multiple observables, (ii) high-precision analyses of parton radiation and jet fragmentation, as well as (iii) detailed studies of non-perturbative QCD (hadronization, color reconnection,...) will be summarized.

### Declaration

I certify that I have checked that I am authorised to submit the abstract with the listed co-authors with their current affiliations

### Change of Speaker

I understand that change of speaker is allowed provided that no participant gives more than one talk. Otherwise, we will ask the speaker to choose between one or the other abstract to be presented.

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**Session Classification:** Plenary

**Track Classification:** WG1: Higher Order and Resummed Calculations