FCC-ee @ LPNHE Introduction

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FCC-ee @ LPNHE Meeting

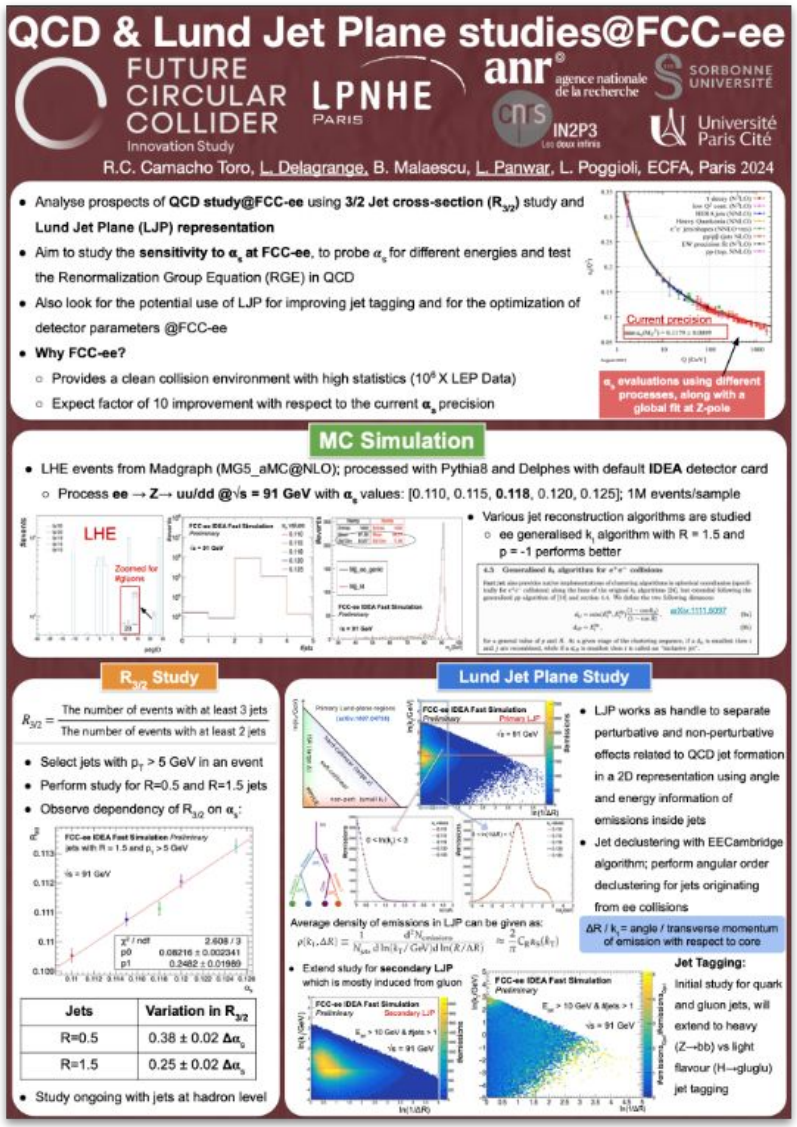
18/02/2026

Activities / ongoing collaborations / evolutions / opportunities

→ QCD - extraction α_S , test RGE, jet substructure and production cross-section, jet tagging:
optimise granularity, resolution, acceptance of the detector
Collaboration with Lata PANWAR (*Assistant Professor at IIT Jodhpur, India*) and Line DELAGRANGE (*PostDoc U. Brandeis, based at CERN*)
ANR LEAPphysics → Finished in January 2026

→ Performance studies: jets, e, γ for various detector geometries and technologies
- Applications of jet substructure techniques to EM objects
- Study anomaly detection techniques (DQ) with ML tools
- Simulations with the "Lorenzetti" tool (IDEA detector)
- Collaboration with colleagues from UFBA et UFRJ

→ Bianca Raciti (PostDoc) started in February 2026, working mainly with Giovanni Calderini:
"The position is focused primarily on the development of silicon sensors for the vertex detector and the timing layers of the future FCC-ee experiments and application to the FCC-ee physics program; technology options presently considered are Monolithic Active Pixels (MAPS) for the vertex and MAPS or pixelated Low Gain Avalanche Diodes (LGADs) for the timing layers.
The successful candidate is expected to take on scientific responsibilities in both areas of silicon sensors and study of the impact on physics analyses. "



"Third 3rd ECFA workshop on e+e- Higgs, Electroweak and Top Factories"

1st prize for Line & Lata

Activities / ongoing collaborations / evolutions / opportunities

→ Possible future developments:

- Potential collaboration with LLR & LKB on precise timing distribution & 5d reconstruction (also ongoing effort on 5d reconstruction in ATLAS, where the LPNHE group is strongly involved)
- Question of quantum sensors: initiative on sensors @ SU; discussions with colleagues @ LKB

→ Alain's activities

Various News and Points for Discussion

→ Budget FCC-ee @ LPNHE:
Requested 2025: 5.4k ; Received: 4.5k
Similar request for 2026. Received 2k for the 1st transfer up to now.
For 2027 plan to adjust the request to the group evolution

→ Sent Grey Book registration form to Patrick Janot & FCC Office: indicated BM & G. Calderini as coordinator/deputy

→ Ongoing discussions about the FCC-France coordination role, triggered by IN2P3: duration of mandates, change of the person in charge

→ Web page FCC France being prepared by Catherine Biscarat and Luc Poggioli. ToDo: provide inputs (e.g. publications > 2020 (start of FCC France))

Various News and Points for Discussion: Talks / Meetings

→ **FCC Week 2026** will take place in **Helsinki, Finland, from 8 to 12 June 2026**, at the University of Helsinki

→ Ongoing discussions about having FCC France workshop: 25-27 Nov Marseille

→ Talk by Alain @ Colloquium Precision Physics at Sorbonne University [Organised by LKB] April 9 & 10 @ Charpak

→ Talk on Lorenzetti, by Eduardo Simas (UFBA), at the DRD Calo meeting on March 4th (https://indico.cern.ch/event/1648680/)
https://drdcalo.web.cern.ch

→ Looking for ideas to propose FCC-ee topics/speakers for seminars at LPNHE

→ Future FCC-ee @ LPNHE meetings:

- Next meeting: 05/03
- Advertise these meetings more broadly: Friday meeting / Coordination / LNPHE news ?
- What frequency: ~ 2 - 4 weeks ?
- Identify a time slot that generally works for most people ?