## **ACCELERATOR SEMINAR**

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CERN

Thursday, 10. December 2020 at 4 pm

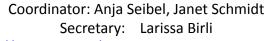
Online-Seminar via Zoom (ID: 919 9272 7808/ PW: 027344)

## Linac4 Source Extraction and Low-Energy Beam Transport Studies

Linac4, a 160 MeV, 352.2 MHz, H- accelerator will become the new injector to CERN's chain of accelerators at the end of the second long shutdown of the LHC (LS2). While the beam quality provided at 160 MeV and at 25 mA is sufficient for the production of beams conforming to the LHC Injectors Upgrade (LIU) goals, higher beam currents will be beneficial for future users.

Presently, the beam current from the Linac is limited by the pre-injector: source, low-energy beam transport and RFQ. In this talk, some of the investigations done between 2017-2019 on modeling and understanding the extraction from the ion source, as well as investigations into the low-energy beam transport will be presented.





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