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## **Transport studies of low energy radioactive ion beams produced by photofission at ALTO-LEB**

*Tuesday, 9 May 2023 16:30 (2 hours)*

The ALTO research platform at the Laboratoire de physique des 2 infinis Irène Joliot Curie (IJCLab) is dedicated to wide-ranging research in nuclear physics, nuclear astrophysics and interdisciplinary activities such as health physics. ALTO-LEB is the low energy beam area of ALTO where neutrons rich exotic nuclei are studied.

A new precision experiment is being installed at the ALTOLEB facility : a double Penning trap mass spectrometer MLLTRAP coupled with a RadioFrequency Quadrupole Cooler and Buncher (RFQCB). This last device requires low energy beams with low emittance, low energy dispersion and with few contaminants. This paper focuses on the beam transport at ALTO-LEB, from the target-ion source vault to the RFQCB. Simulations of the ions extraction from the ion source and beam transport calculations are being presented in this work. Those results are also directly connected to the reliability of ALTO-LEB beam lines initiated at IJCLab in 2018.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

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