

# PsICO

## Positronium Interferometry and Correlation Observation

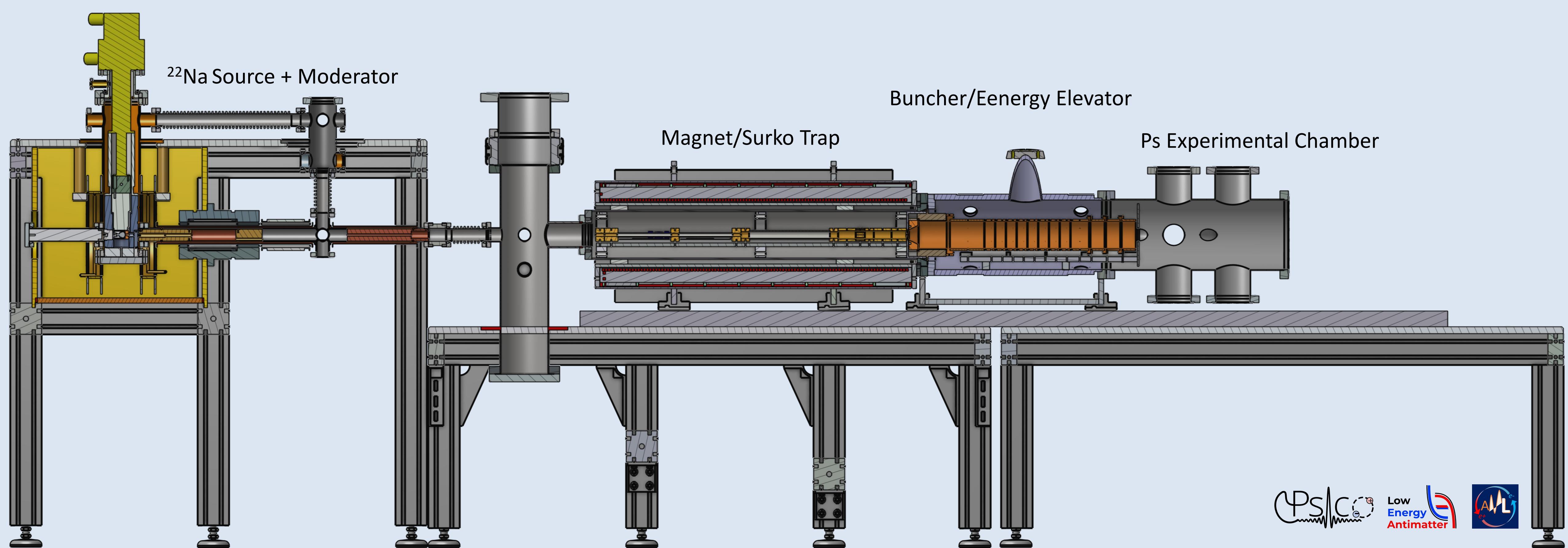
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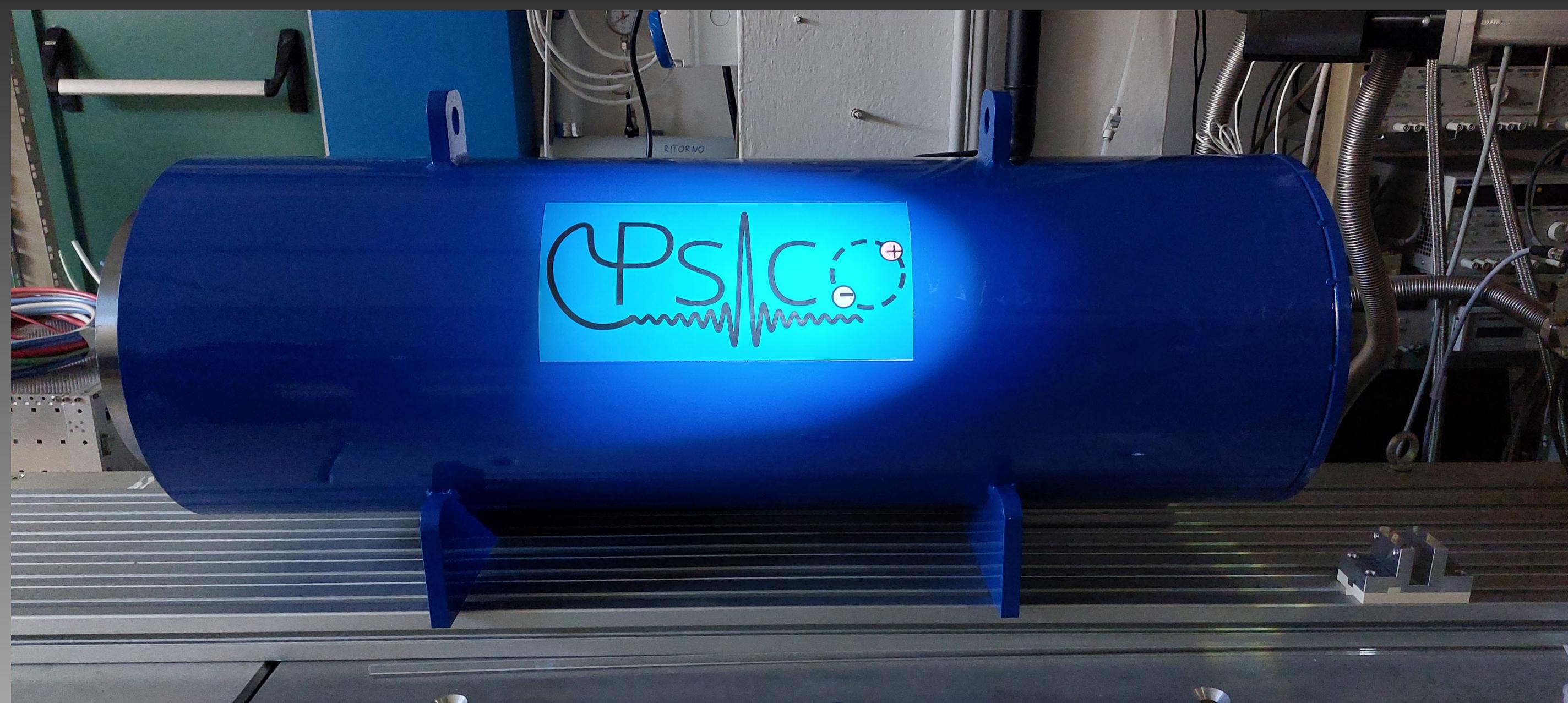


PsICO aims to produce a positronium (Ps) beam excited to the long-lived  $2^3S$  state for the following:

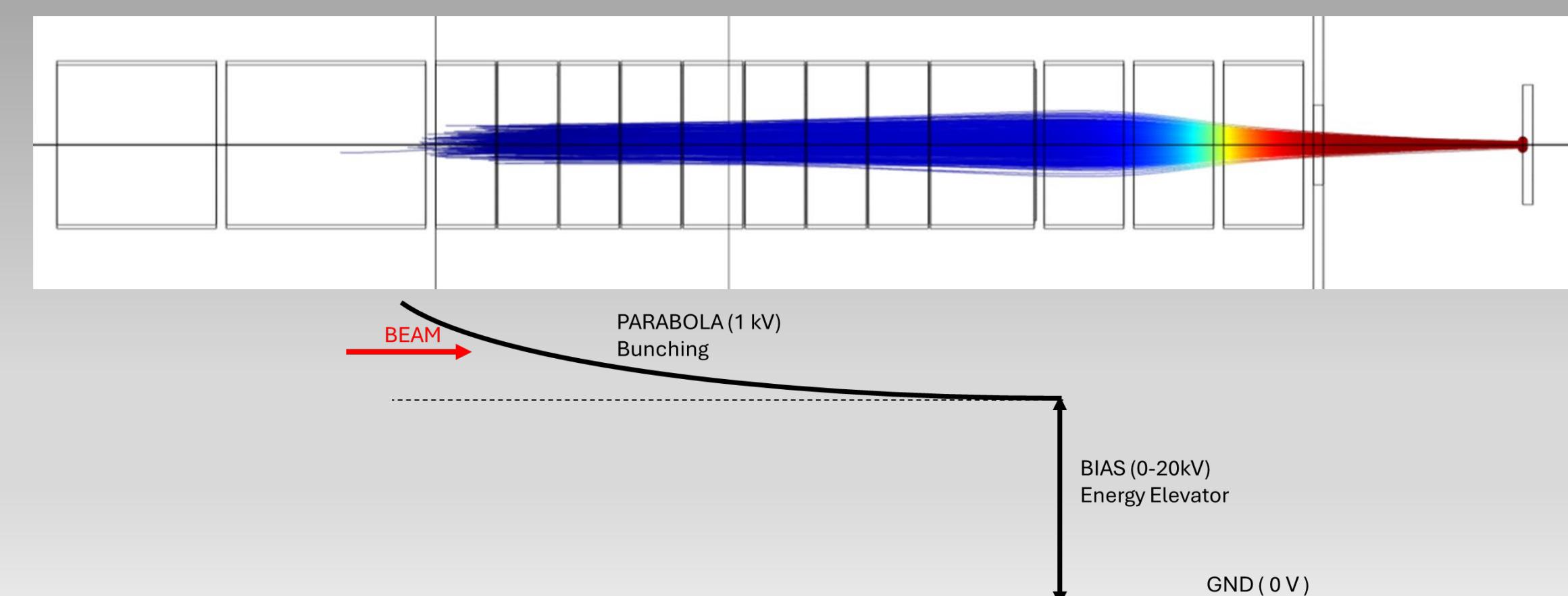
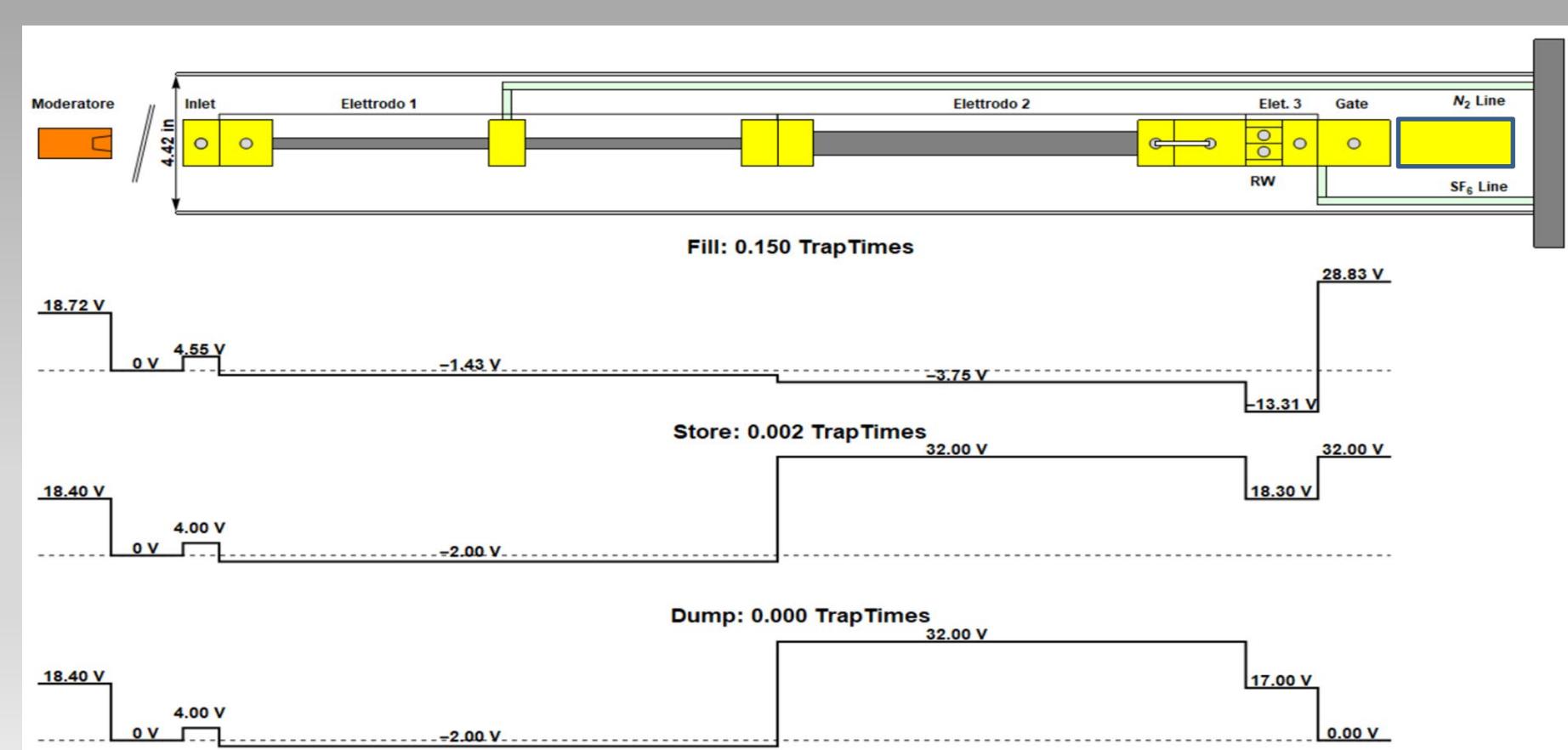
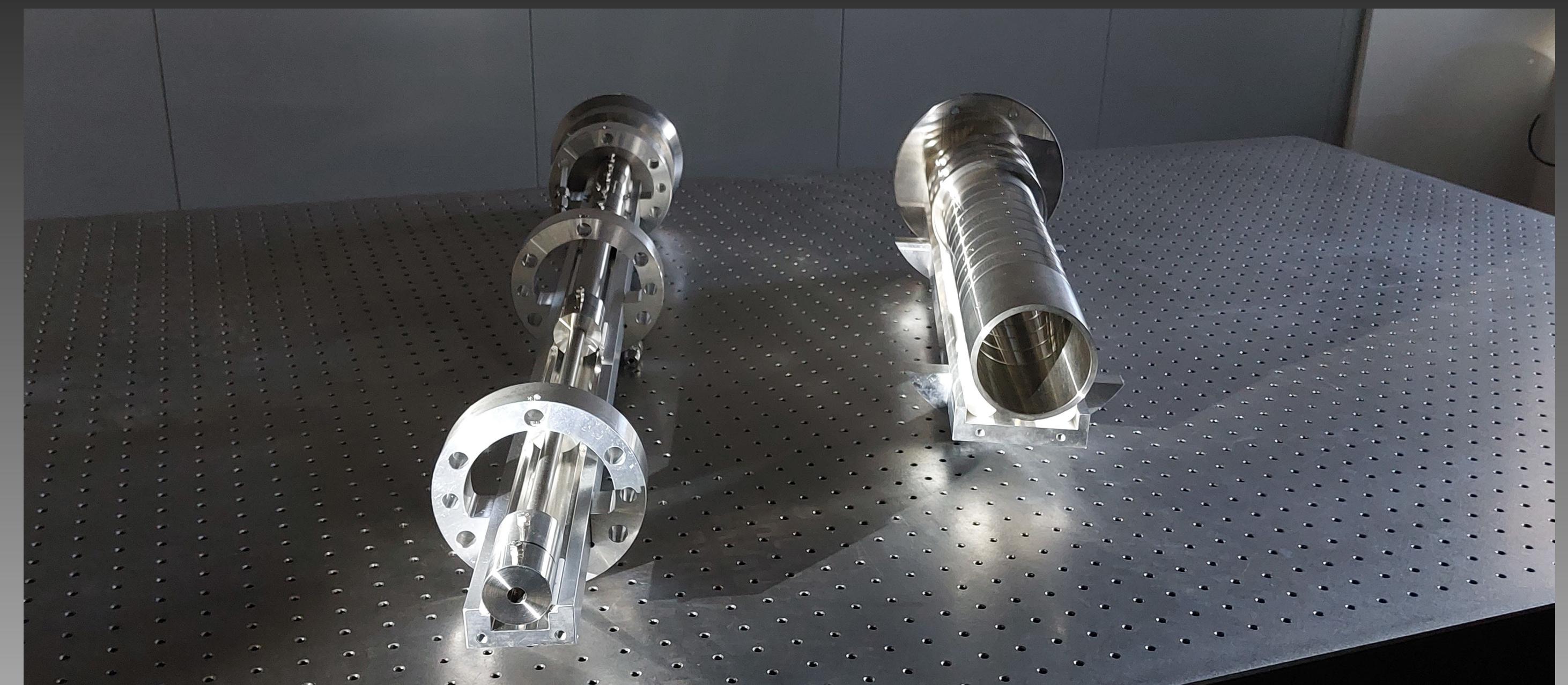
- i) investigate the entanglement of the  $3\gamma$  coming from the annihilation of Ps, prepared in selected quantum states
- ii) measure inertial sensing with the purely leptonic system



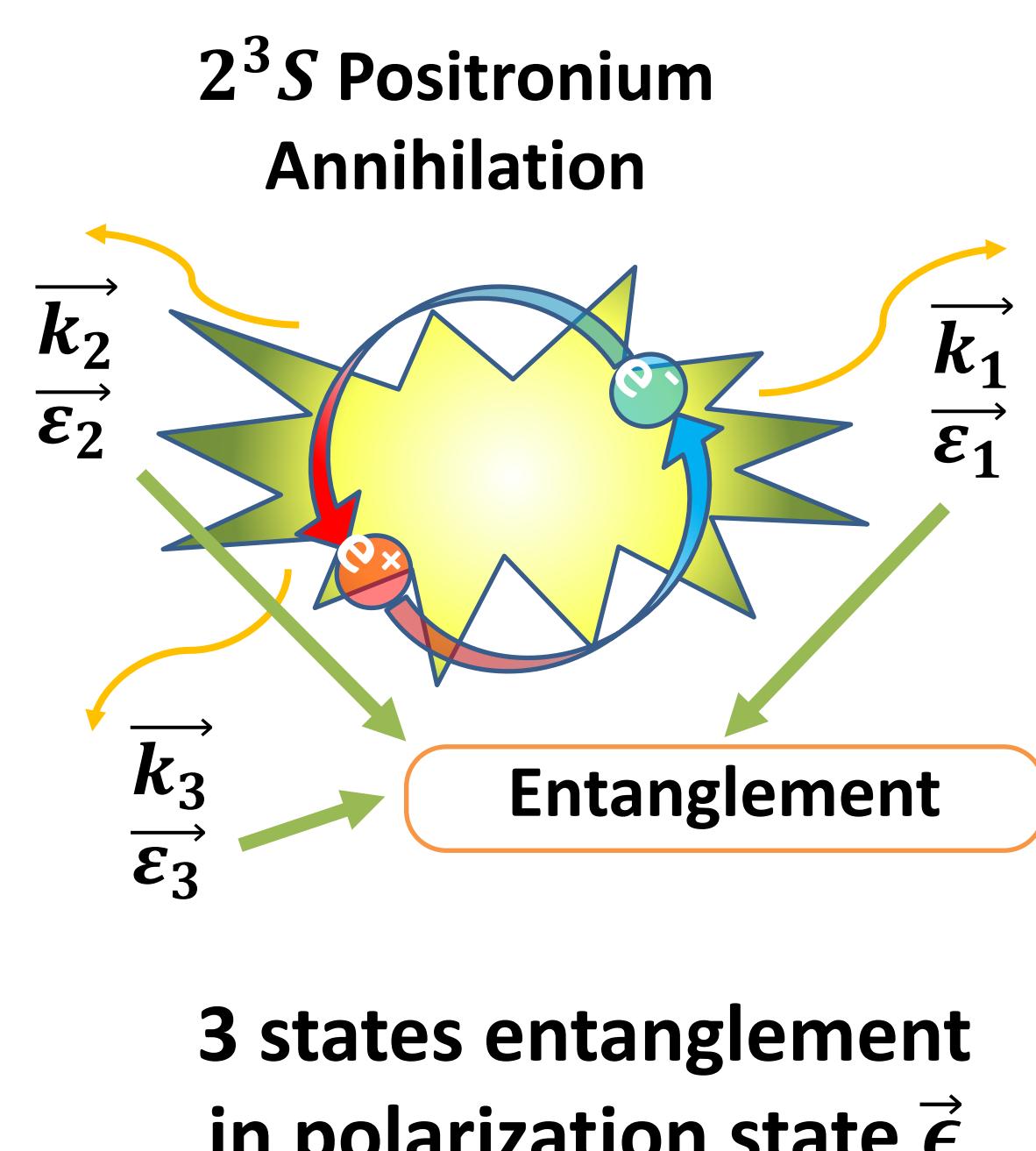
MAGNET OF THE SURKO TRAP



SURKO TRAP AND BUNCHER OPTICS



i) entanglement detection



ii) inertial sensing detection

