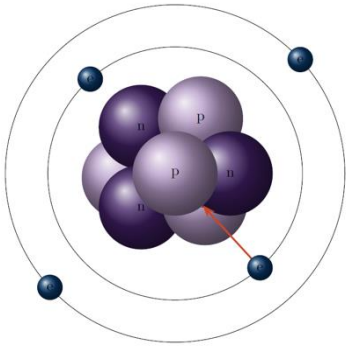




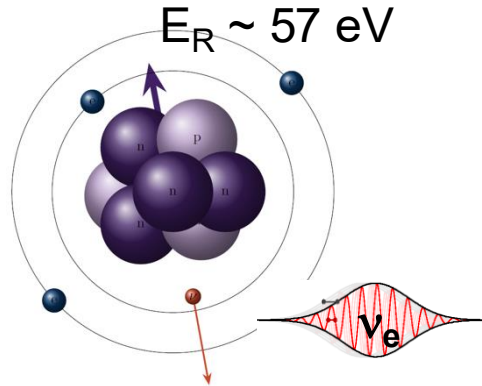
The BeEST experiment

${}^7\text{Be}$ ($Z=4$)



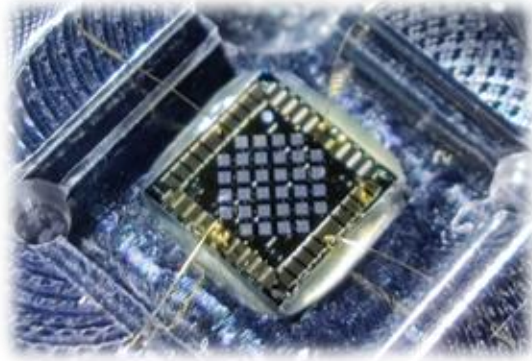
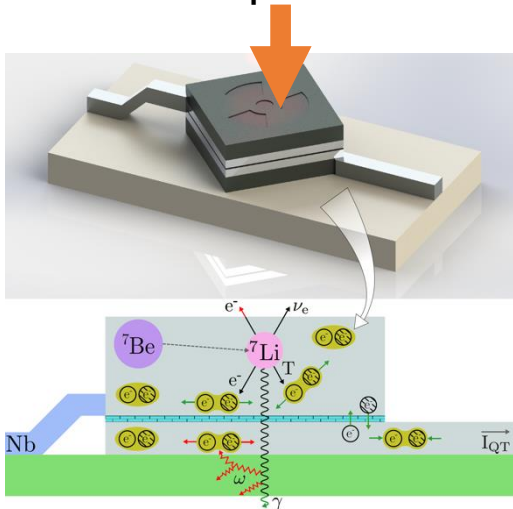
$Q = 862 \text{ keV}$

${}^7\text{Li}$ ($Z=3$)

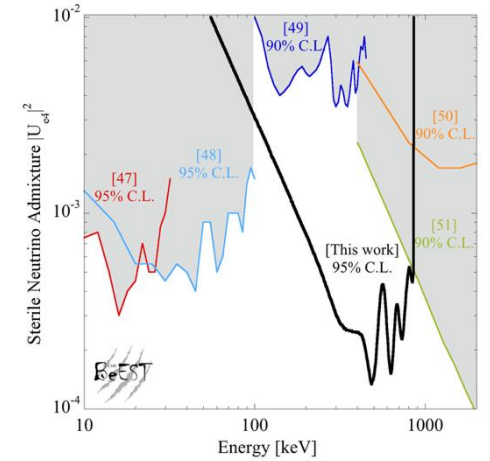
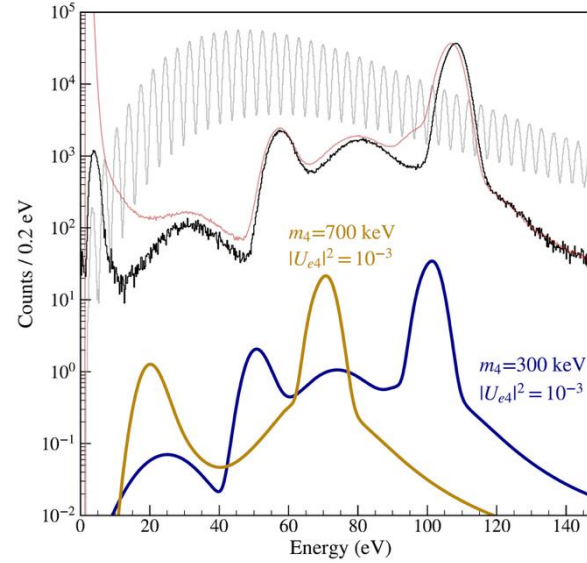


$T_{1/2} = 53 \text{ days}$

RIB Implantation

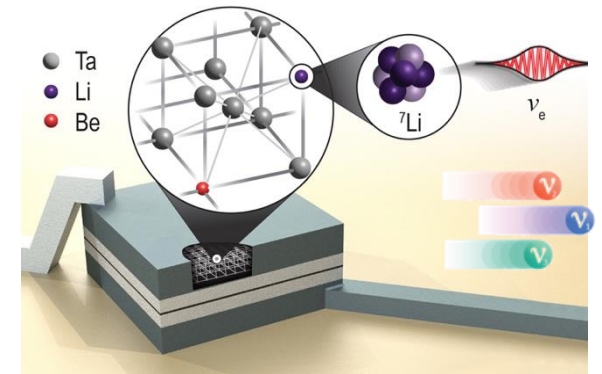
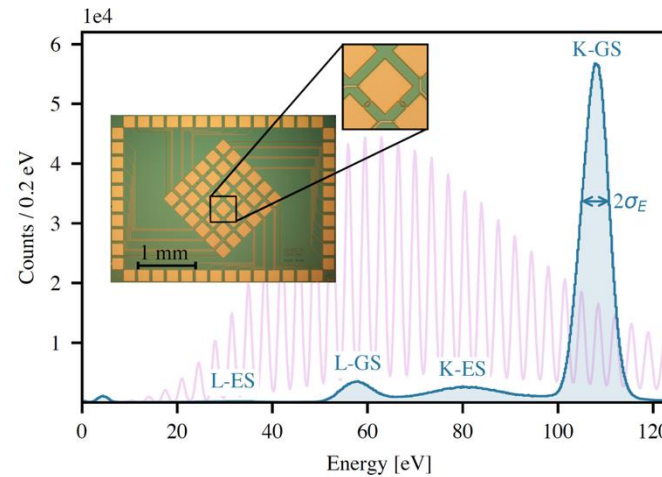


World-Leading Laboratory Search for a Fourth "keV" Neutrino



Phase-II: PRL **126**, 021803 (2021)
Phase-III: PRD **111**, 052010 (2025)

Direct Probe of Neutrino Wavepacket Heisenberg Width



Phase-III: *Nature* **638**, 640–644 (2025)

The BeEST Collaboration

2025 Collaboration Meeting
TRIUMF, Canada



- CEA Paris-Saclay
- Colorado School of Mines
- Lawrence Livermore National Laboratory
- LPC Caen
- McGill University
- McMaster University
- NOVA School of Science and Technology
- Pacific Northwest National Laboratory
- SLAC National Accelerator Laboratory
- Star Cryoelectronics LLC
- TRIUMF
- Université Strasbourg
- XIA LLC
- Yale University
- Queen's University



TRIUMF/LPC-Caen activities

- Collaboration with Leendert Hayen (Laboratoire de Physique Corpusculaire de Caen)
- Co-PI for “SALER: Superconducting Array for Low Energy Radiation” @FRIB → @TRIUMF
- Planned: ASCARD: “Assembly of Superconducting Arrays for Radiation Detection” @GANIL



FRench And CANadian STJ Science



- Plan to host LPC-Caen HQP at TRIUMF this summer
- Vice-versa: Involvement of Canadian HQP in ASCARD program

