

# CYCLOTRON COLLOQUIUM

## Probing Fundamental Physics: The Fruitful IGISOL/JYFLTRAP (Ion Guide/Penning Trap) Combination

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Cyclotron Institute, Room 228

Refreshment will be served at 3:30pm

### **Abstract:**

The ion guide isotope separator online (IGISOL) facility at the University of Jyväskylä, Finland, has been operational for over 30 years providing short-lived exotic ions for various physics studies. The ion guide method is chemically not selective and thus can even provide ion beams of refractory elements like zirconium. About 15 years ago, a Penning Trap (JYFLTRAP) was added to the facility. Mostly the trap is being used for atomic mass measurements (more than 250 atomic masses have been measured so far) and also a high-resolution mass filter providing monoisotopic and even monoisomeric beams for decay-spectroscopy experiments. In this talk I will introduce the ion guide and Penning Trap techniques and give a glimpse at what this combination is capable of providing for fundamental physics like testing the Standard Model and neutrino physics.