

- Date & Time : **Thursday 16th APR. 2026 10:30-12:00**
- Venue : Common Room, Information Science Bldg. 4F



Dr. Kenji Shu

**Research Scientist
Quantum Condensate Research Team,
CEMS, RIKEN**

“Study of particle physics
using exotic atom and molecule”

Exotic atoms and molecules provide unique opportunities to test fundamental physics beyond the Standard Model. In this seminar, I will discuss two such approaches that fully exploit quantum technology. The first is laser cooling of positronium, the bound state of an electron and a positron, which offers a promising route toward precision measurements and gravity-related studies of antimatter. The second is the search for the electric dipole moment (EDM) using the molecular ion ThF^+ , in which rare thorium isotopes are employed, providing a powerful system for probing CP-violating physics.