

# **RCNP, OSAKA UNIVERSITY**

## **NUCLEAR PHYSICS**

### **EXPERIMENT SEMINAR**

Title            Isomers for nuclear structure and future tools

Speaker        Prof. Rudrajyoti Palit  
                    (Department of Nuclear and Atomic Physics  
                    Tata Institute of Fundamental Research)

Date and Time   Feb 22th (Fri.) in 2019    15:00-

Place            Lecture room 1 on the 6th floor of RCNP main  
                    building

#### **Abstract:**

Nuclear metastable states with half-lives longer than a few nanoseconds may be found in many nuclides in the nuclear landscape. With the increasing sensitivity of different measuring techniques, a number of new isomers are being discovered with various spectrometers at new accelerator facilities. The measurement of the static magnetic dipole moment is very important for exploring the configuration of the isomers. These isomers provide a tool to study the different nuclear structure models. Furthermore, a wide range of applications of nuclear isomers remain a topic of current interest. In particular, nuclear isomers have the potential to provide material with high energy storage capacity with controlled release of its energy on demand. The tools required to probe the isomers will be presented. Some of our recent results on nuclear isomers will be highlighted.

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Contact Person: Eiji Ideguchi (RCNP)