## Nuclear structure studies via isomeric nuclear moments using spin-aligned RI beams

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The magnetic dipole moment and the electric quadrupole moment are nuclear observables that provide key information on proton and neutron configurations, and on the shape of the nucleus, respectively. In precision nuclear spectroscopy of unstable nuclei, the anisotropy of radiation from spin-oriented nuclei allows monitoring of their spin motion. Therefore, techniques to produce spin-oriented RI beams have played an essential role. Recently, a two-step projectile fragmentation scheme was developed to achieve high spin alignment in RI beams, and has been applied to frontier studies of the nuclear structure of neutron-rich nuclei such as  $^{75}$ Cu and  $^{99}$ Zr. In this presentation, recent progress in isomeric nuclear moment measurements using highly spin-aligned beams at RIKEN RIBF will be reviewed, and future prospects for nuclear moment measurements will be discussed.

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