

# 678<sup>th</sup> ASRC Seminar

Date: Wednesday, April 26, 14:30 ~ 16:00

Location: Room 302, ASRC bldg.

Speaker: Dr. Hiromi Iinuma  
(Ibaraki University)

Title: Challenges for new Physics with Spin probe

Abstract: Spin is a fundamental quantity of elementary particles as well as charge and mass, and it becomes a probe that opens a new aspect of physics. Two experiments making full use of the spin polarized beam are discussed in my talk.

One is a search for the internal structure of proton spin at BNL. Besides a beauty of spin-dependent physical phenomena and the skill of experimental technology, I learned a realization of a high-quality beam is a key to perform such high accurate experiments. The other is the muon  $g-2$  / EDM experiment at J-PARC/MLF, which is in preparation. We are working for the ultra-cold muon beam.

Establishing a technology of the ultra-cold muon beam will greatly contribute to develop new experimental methods for material life sciences. I expect a good discussion to apply my experimental skill and knowledge to collaborate with these fields, too.

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