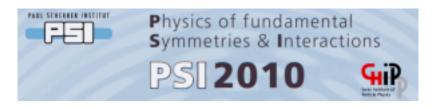
## Physics of fundamental Symmetries and Interactions - PSI2010



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## Production of UCN at J-PARC

Monday, 11 October 2010 17:30 (15 minutes)

The application of the pulsed proton beam from the Japan Proton Accelerator Research Complex (J-PARC) to produce ultracold neutrons is proposed for the measurement of the electric dipole moment of neutrons. An active optics synchronized with the UCN time-of-flight is proposed to suppress the decrease of the spatial UCN density on transporting the instantaneousely dense UCNs into a remote storage volume. We report the study of the active transport optics and the design of the UCN system.

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Track Classification: Advanced ultracold neutron sources