

Abstract Submitted  
for the HAW09 Meeting of  
The American Physical Society

**T-violation experiment using polarized  $^8\text{Li}$  at KEK-TRIAK and TRIUMF-ISAC**<sup>1</sup> ETSUKO SEITAIBASHI, Department of Physics, Rikkyo University, Tokyo, JAPAN, MTV COLLABORATION — If electrons emitted from polarized nuclei have non-zero transverse polarization, time reversal symmetry is broken. In order to search the electron transverse polarization, we have performed an experiment after developing an electron-transverse-polarimeter using a multi-wire-drift-chamber (MWDC). The electron transverse polarization can be determined by measuring Mott scattering angular distributions from a thin metal foil. A physics data taking run was performed in September 2008 at KEK-TRIAK. We have successfully reconstructed the Mott scattered electron tracks. From later year 2009, a new experiment is going to be performed at TRIUMF-ISAC. Since the beam intensity and polarization are a greatly increased, a significant improvement can be expected. In this presentation, the development status and the expected results of the TRIUMF experiment will be reported.

<sup>1</sup>This work was supported by Grant-in-Aid for Young Scientists (A) (18684010,21684012).

Etsuko Seitaihashi  
Department of Physics, Rikkyo University, Tokyo, JAPAN

Date submitted: 01 Jul 2009

Electronic form version 1.4