Contribution ID: **106** Type: **Oral presentation using Zoom**

A model for tiny neutrino masses, dark matter, and baryon asymmetry and its phenomenology at the ILC

Wednesday, 27 October 2021 13:40 (20 minutes)

The origin of tiny neutrino masses, dark matter, and baryon asymmetry of the universe is still a mystery, and there is no doubt that there is new physics beyond the Standard Model. In a previous work, a new physics model at TeV-scale where all of them can be explained has been proposed, however the authors neglected CPV phases, and on the baryon asymmetry, they only showed the possibility of the strongly 1st order phase transition for the electroweak baryogenesis. We have extended this model to include CPV phases and evaluated neutrino masses, dark matter, and the baryon number asymmetry generated by the electroweak baryogenesis. In this talk, I will introduce this model and discuss the phenomenology at current and near future experiments including the ILC.

1st preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

2nd preferred time slot for your oral presentation

10:00-12:00 JST (3:00-5:00 CEST, 21:00-23:00 EDT, 18:00-20:00 PDT)

Primary authors: ENOMOTO, Kazuki (Osaka University); AOKI, Mayumi; KANEMURA, Shinya (Osaka University)

Presenters: ENOMOTO, Kazuki (Osaka University); AOKI, Mayumi; KANEMURA, Shinya (Osaka University)

Session Classification: H-1: BSM particle production

Track Classification: Parallel sessions: Topical Groups: Session H: BSM particle production