



Contribution ID: 26

Type: **Invited talk**

Synchrotron-Cherenkov Radiation Observed in Laboratory Being Predicted in Astronomy

Monday, 6 October 2014 16:30 (30 minutes)

The theory of Synchrotron-Cherenkov Radiation (SCR) is proposed by Rynne et al. in 1978 in the field of Astronomy, but actual radiations have never been observed. We had to wait this observation until a tabletop synchrotron light source (TSLS) was developed. By hitting light materials by energetic electrons under magnetic field in linear accelerator it could be observed, but SCR is hidden behind of transition radiation (TR). A tiny target in the TSLS well separated SCR from TR. The observed SCR is more like laser light and quite powerful. In many academic as well as industrial fields not only in Astronomy but also in material science and semiconductor fabrication we will find applications of SCR. I will give introductory talk in this conference.

Primary author: Prof. YAMADA, Hironari (Ritsumeikan University)

Presenter: Prof. YAMADA, Hironari (Ritsumeikan University)

Session Classification: S2: Channeling & Radiations in Various Fields