Contribution ID: **79** Type: **Oral presentation**

Broadband Emission of Magnetar Wind Nebulae

Thursday, 29 October 2015 15:30 (20 minutes)

Rotation-powered pulsars release their rotational energy as relativistic magnetized plasma and create pulsar wind nebulae (PWNe) around them.
Although magnetars are considered as magnetically powered pulsar, they also release their rotational energy by the wind.
This is obvious from the fact that they are spinning down.
We have been detected PWNe around energetic pulsars which have spin-down power of more than 10^36 erg/s, typically.
In this study, we consider the wind nebula around magnetars (MWN).
Although they have relatively small spin-down power, magnetars would have had a large spin-down power at their birth because they spin down rapidly.
Here, we construct an one-zone spectral model of MWN considering spin-down evolution of magnetar and apply to some objects which are claimed to have MWN in X-rays.

Primary author: Dr TANAKA, Shuta (ICRR, The University of Tokyo)

Presenter: Dr TANAKA, Shuta (ICRR, The University of Tokyo)

Session Classification: Gamma-Ray Astrophysics

Track Classification: Gamma-ray Astrophysics