



Contribution ID: 35

Type: **Talk**

## Magnetars: the Universe strongest magnets

*Thursday 17 December 2015 11:50 (20 minutes)*

Magnetars are a small subset of the neutron star population, being the strongest magnets we know of. They show themselves via powerful X/gamma-ray steady and flaring emission. The energetics of such flares in our Galaxy second only the supernova explosions. In this talk I will first review the observational characteristics of these highly magnetic pulsars, and some recent discoveries in the field. Subsequently, I will present what we currently know about their life-cycle, through detailed simulations of neutron star magneto-thermal evolution and pulsar population synthesis. I will then finish with some considerations on how the study of the Galactic population of magnetars might constrain their possible connection with Gamma Ray Bursts.

### Collaboration

Nanda Rea (CSIC-IEEC/University of Amsterdam)

**Primary author:** REA, Nanda (University of Amsterdam/CSIC-IEEC)

**Presenter:** REA, Nanda (University of Amsterdam/CSIC-IEEC)

**Session Classification:** IUPAP young astrophysicist awards