



Contribution ID: 4

Type: **not specified**

## **Modeling the observed spectra and light curves of synchro-curvature emission of pulsars**

*Wednesday, 27 November 2024 13:20 (20 minutes)*

In this talk, we will review the synchro-curvature modeling of high-energy radiation from pulsars. Through a minimalist model containing only three essential free parameters, the model is able to fit the spectra of the entire population of pulsars, showing trends between the magnitude of the electric field and the parameter associated to the typical lengthscale of the acceleration region. We also incorporate the high-energy maps assuming the emission from a simplified current sheet region beyond the light cylinder, and show preliminary results on successful simultaneous spectral and light curve fitting, which give constraints on the inclination and viewing angles. The underlying model is a useful tool to approach the pulsar population, since it is intrinsically simple but gives hints on the relevant physical parameters at play. It can indeed be complicated to include more realistic physics and overcome some current caveats.

**Presenter:** VIGANÒ, Daniele

**Session Classification:** Theoretical models: Pulsar emission mechanisms