## PHAROS Conference 2020: The multi-messenger physics and astrophysics of neutron stars



Contribution ID: 126

Type: Oral Presentation

## Distortions of polarization angle curve in radio pulsars

Tuesday 31 March 2020 12:45 (15 minutes)

Complex distortions of polarization angle curve in radio pulsars are mainly caused by superposition of radiation in two orthogonal polarization modes. The resulting polarization depends on several factors, such as the relative amount of the modes, their ellipticity, the statistical spread of their polarization state and on how precisely the modes are orthogonal. Moreover, the observed polarization depends on whether the modes are superposed coherently or incoherently. I have modelled selected complex polarization effects to determine the type of observed mode superposition (coherent vs incoherent). In particular, I will explain how it is possible to have orthogonal polarization mode transitions without large change in the magnitude of circular polarization, as observed for several pulsars, including B0031-07.

Author:Dr JAREK, DyksPresenter:Dr JAREK, DyksSession Classification:Parallel 1A

Track Classification: Emission Mechanisms