

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



Contribution ID: 162

Type: **Poster**

Particle diffusion in pulsar magnetospheres

We explore the diffusion of charged in a pulsar magnetosphere by considering the adiabatic invariants describing the motion of particles due to an electric and magnetic field. Charged particles will perform a helical motion round a magnetic field line, they will be bounce between the northern and Southern Hemisphere and drift in the azimuthal direction forming a ring current. While these effects are most likely dynamically subdominant to affect the structure of the magnetosphere, they may impact the regions where particles are concentrated.

Author: Mr KORMPAKIS, Triantafyllos (University of Patras)

Co-author: GOURGOULIATOS, Konstantinos (University of Patras)

Presenter: Mr KORMPAKIS, Triantafyllos (University of Patras)

Session Classification: Poster Session

Track Classification: Posters