

CONTINUUM LINEAR POLARIZATION OF WHITE DWARFS IN R BAND - SUMMARY OF THE ROBOPOL SURVEY

Agnieszka Slowikowska (1), Dmitry Blinov (2,3), Pablo Reig (3,2)

(1) Institute of Astronomy, Faculty of Physics, Astronomy and Informatics, Nicolaus Copernicus University in Torun, Grudziadzka 5, PL-87-100 Torun, Poland; (2) Institute of Astrophysics, Foundation for Research and Technology-Hellas, Voutes, 71110 Heraklion, Greece; (3) Department of Physics, University of Crete, 71003, Heraklion, Greece

In my talk, I will summarise the results of the linear polarization survey of white dwarfs (WDs) in the R band with the RoboPol polarimeter. We observed more than 130 WDs isolated and in the binary systems. We found that the median polarization degree of isolated DA WDs and DB WDs is similar but lower than the median polarization of isolated DC WDs. The DB WDs in binaries are more polarized than binaries containing DA+dM or double-degenerated systems (DDSs) with DA components. Additionally, we present the linear optical polarisation measurements of both components of some common proper motion binary systems for the first time. Our sample's highest linear polarization degree is measured for the DC isolated WD 0313+393 (GD 44) at 2.18%+/-0.34%. The vast majority of WDs show polarization degree lower than 0.5%. Therefore they can be used as faint low linear polarization standard stars.