Contribution ID: **12** Type: **Invited Talk**

DiPol-UF simultaneous three-color (BVR) polarimeter with EM-CCDs

Wednesday, 8 June 2022 14:30 (25 minutes)

DiPol-UF is a new instrument capable of high precision (10–5) polarimetric observations simultaneously in three passbands (BVR). The instrument utilizes electron-multiplied EM CCD cameras for high efficiency and fast image readout. The key features of DiPol-UF are: (i) optical design with high throughput and inherent stability; (ii) great versatility which makes the instrument optimally suitable for observations of bright and faint targets; (iii) control system which allows using the polarimeter remotely. The DiPol-UF is equipped with a retractable calcite unit and can be used also as a high-speed simultaneous three-band photometer. Polarimeter is equipped with exchangeable half and quarter-wave plates and capable to measure linear and circular polarization.
Examples are given of the first results obtained from high signal-to-noise ratio observations of bright nearby stars and fainter sources, such as X-ray binaries in their quiescent state and magnetic white dwarfs.

Primary author: BERDYUGIN, Andrei (Dept. of Physics and Astronomy, University of Turku, Finland)

Co-authors: Dr PIIROLA, Vilppu (Dept. of Physics and Astronomy, University of Turku, Finland); Dr KOSENKOV, Ilia (Dept. of Physics and Astronomy, University of Turku, Finland)

Presenter: BERDYUGIN, Andrei (Dept. of Physics and Astronomy, University of Turku, Finland)