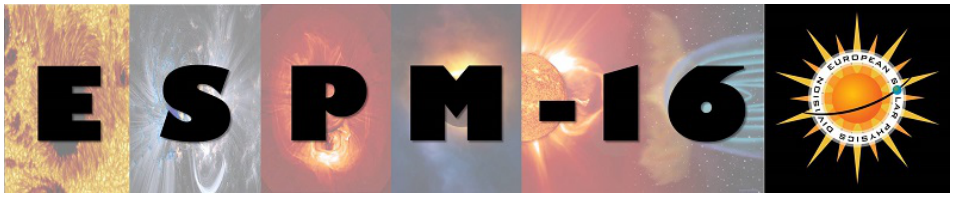

Contribution ID: **533** Type: **Poster**

Coronal cavities in linear polarization observations

Wednesday, 8 September 2021 11:52 (13 minutes)

Quiescent coronal cavities can provide insight into the solar magnetometry. They are observed in the coronal emission lines, both in polarized and unpolarized light. In the total linear polarization (L/I) they often possess a 'lagomorphic' structure that reflects the underlying magnetic field configuration. We performed analysis of 570 coronal cavities observed between 2012 and 2018 by the Coronal Multichannel Polarimeter (CoMP). The majority of cavities (82%) found in our study had a characteristic lagomorphic structure in linear polarization. We also compared cavity widths and sizes of the L/I signatures in order to evaluate the correlation between the two features. Our results suggest that observations of linear polarization in the solar corona are consistent with the theoretical model of cavity formation and structure.

Primary authors: RUMIŃSKA, Agnieszka (University of Wrocław); BAK-STESLICKA, Urszula (Astronomical Institute, University of Wroclaw, Poland); GIBSON, Sarah, E. (National Center for Atmospheric Research, HAO); FAN, Yuhong (National Center for Atmospheric Research, HAO)

Presenter: RUMIŃSKA, Agnieszka (University of Wrocław)

Session Classification: Poster Session 6.1

Track Classification: Session 2 - The Solar Atmosphere: Heating, Dynamics and Coupling