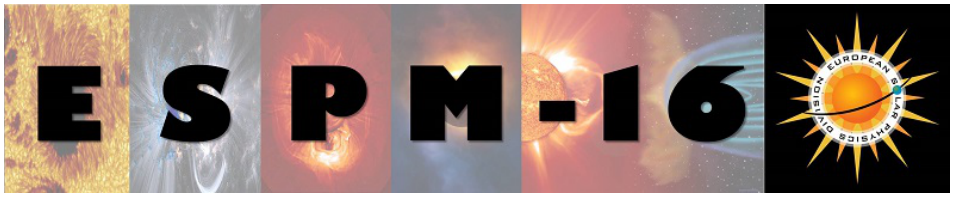

Contribution ID: **557** Type: **Poster**

Energy flux of Alfven waves in the stratified solar atmosphere: propagation and reflection

Wednesday, 8 September 2021 14:00 (13 minutes)

The propagation of Alfven waves with periods > 10 s in the stratified isothermal atmosphere has been considered. Based on the numerical simulation the dependence of the wave energy flux on the height at different values of wave periods has been calculated. It has been shown that the so-called tuning points («cutoff frequencies») could not be used for the description of wave energy flux. The results are interpreted on the basis of the oscillation theorems and phase relationships between perturbed velocity and magnetic field. The process of continuous reflection of Alfven waves in the solar atmosphere is discussed.

This work was supported in part by the Russian Foundation for Basic Research (project no. 20-52-26006) and the Ministry of Education and Science (NIR no. 0831-2019-0006).

Primary authors: TSAP, Yuriy (Crimean Astrophysical Observatory); JELÍNEK, Petr (University of South Bohemia, Faculty of Science, Department of Physics); SMIRNOVA, Victoria

Presenter: TSAP, Yuriy (Crimean Astrophysical Observatory)

Session Classification: Poster Session 7.3

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