Iulia
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Oral
(Invited Talk)
From the first observations of the coronal mass ejections (CMEs), scientists were interested in learning how these large plasma clouds shape in 3D and how they propagate. This led to the formulation and implementation of multiple methods to retrieve their approximate 3D localization. CMEs are visible in optical wavelengths by Thomson scattering of the sunlight at the free electrons of the plasma cloud. One of the formulations attempting to calculate the 3D position of the CME is called the polarization ratio (PR) method. Moran and Davila (2004) introduced it two decades ago and has its fundaments in Thomson scattering physics. By applying the PR method to STEREO coronagraph images, Mierla, Chifu et al. (2011) reported very low polarization from the core of a CME triggered by a prominence eruption. The study concluded that the major part of the CME core emission presenting low polarized brightness is the source of a Halpha emission. In this talk, I will show the details of the methods we used, leading us to the above-mentioned conclusion.
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