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Oral
(Invited Talk)
In anticipation of the launch of PUNCH, which will remotely observe the inner heliosphere in total and polarized white light, we review what we have learned about corotating interaction regions (CIRs) and their rapidly evolving counterparts, stream interaction regions (SIRs), from existing remote observations. These observations encompass both interplanetary scintillation (IPS) and Thomson-scattered white light imagery and extend back many years -- the first observation of a CIR/SIR by IPS was reported more than 50 years ago and the first observation of a CIR/SIR by Thomson-scattered white light was reported almost 20 years ago. This talk will primarily focus on white-light observations. Since PUNCH will remotely observe CIRs/SIRs with high-resolution, high-cadence polarization ratio images -- that is, the ratio of polarized brightness to total brightness -- we briefly investigate how the polarization ratio will provide three-dimensional location information and consider how this may help us to better observe, track, and understand the dynamic interactions of CIRs/SIRs with CMEs and the background solar wind.
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(Invited Talk)