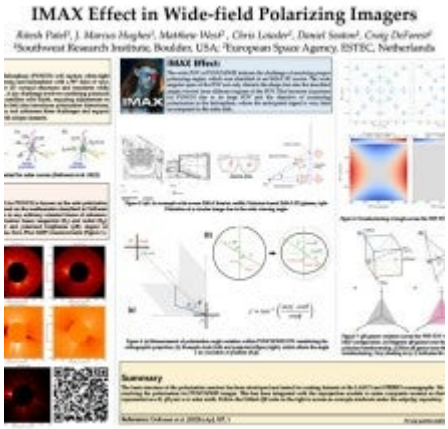
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Poster
The Polarimeter to Unify Corona and Heliosphere (PUNCH) is a very wide field polarizing imager covering a 90? diameter region of the sky, stitched together from four individual fields of view (FOVs), three of which are supported by Wide Field Imagers (WFIs) with 50? diameter individual FOVs. The science objective requires precise measurement of linear polarization. The WFI FOV is sufficiently wide that polarizer angles are foreshortened by projection effects relative to the line of sight of each pixel in the instrument, deviating from their nominal angular positions of -60?, 0?, and +60? relative to the instrument frame of reference. Drawing inspiration from an IMAX 3D presentation, we identified parallels between WFI polarization and the challenges of polarimetric right/left channel separation in a large-format 3D cinema. Using a simple geometrical approach we estimated the perceived polarizer angle in the WFI FOV will vary by ±1.5? for ±60? and will remain unchanged for 0? polarizer angles. We present the effect of this deviation on the polarized brightness to be recorded by WFI, along with how optical distortion will shift the location of foreshortened angles. We also discuss the implications of this effect on upcoming technologies based on polarimetry across in wide fields.



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