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Oral

This presentation discusses two interplanetary CMEs (ICMEs) that were observed by PSP when it was at the heliospheric distance ~ 0.5 au from the Sun. The first event occurred on 15-16 March 2019 and the second 25-26 June, 2020. Both ICMEs were related to slow streamer blow-out CMEs, but they interacted in an interesting manner with their surroundings. The March 2019 CME was preceded by a pair of relatively weak shocks and a prominent sheath region. We discuss the formation of magnetic field fluctuations in the sheath and their connection to upstream solar wind structures. The June 2020 CME did not drive a shock, but it nevertheless disturbed the solar wind and heliospheric current sheet/plasma sheet structure ahead, warping it and deflecting the preceding interplanetary field. This interaction also significantly eroded the magnetic flux from the ICME flux rope.

Presentation file

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