

## R010-P02

ポスター 2 : 11/25 AM1/AM2 (9:00-12:00)

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### **Multipoint spacecraft measurements of the ICME structure in October 2021**

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We study a coronal mass ejection (CME) structure that propagated through the inner heliosphere in October 2021, which was simultaneously observed by the five spacecraft including BepiColombo, Solar Orbiter, Parker Solar Probe, STEREO-A, and ACE located at different radial distances and heliospheric longitudes. Interestingly, at least four of the five observed a dip-like signature in the magnetic field embedded in the CME. We investigate the cause of the dip-like signature on the basis of both in-situ solar wind data and solar surface data. We identified and examined the flare-triggering structure of the M1.6 flare, which is likely to cause the CME; however, there is no clear evidence that the flare also caused a dip-like signature in the CME being ejected. We then inferred that the dip-like signature represents a planer magnetic structure (PMS) embedded in the CME-driven sheath. A result of the minimum variance analysis (MVA) applied to the observations confirms that the magnetic field vectors associated with the dip-like signature lied along the plane perpendicular to the minimum variance direction, which planer structure is consistent with characteristics of PMS proposed by previous studies. We discuss how the dip-like signature was distributed in the CME sheath and how it formed. Our MVA results suggest that the magnetic field of the dip-like signature was distributed along the shock surface at least at the Solar Orbiter and ACE locations. We further suggest on the basis of the estimated shock parameters that the CME-driven shock had been developed more furiously than usual during the initial phase of its propagation in the inner heliosphere.