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The CODEX Team
Oral
(Invited Talk)
In September 2024 and in April 2025, the COronal Diagnostic EXperiment (CODEX) and the Polarimeter to UNify the Corona and Heliosphere (PUNCH) will join the fleet of satellites and instruments dedicated to the observation of the Sun from space.
CODEX is an externally occulted solar coronagraph developed by NASA-Goddard Space Flight Center in collaboration with the Korea Astronomy and Space Science Institute (KASI), and the Italian National Institute for Astrophysics (INAF). During its mission, it will be hosted by the International Space Station as an external payload. CODEX is designed to observe the linearly polarized K-corona within the wavelength range 380-440nm to obtain simultaneous measurements of density, temperature, and velocity of the electrons between 3 and 8 solar radii. On the other hand, the constellation of four satellites composing the PUNCH mission will observe the region spanning from the outermost solar atmosphere to the inner heliosphere with a total field of view that goes from 6 to 180 solar radii. PUNCH instruments will image this region in visible light and will measure its polarization aiming at observing and understanding how the young solar wind evolves.
CODEX field-of-view will complement PUNCH’s Narrow Field Imager (NIFI) field of view. The electron temperature and the outflow speed measured by CODEX will provide the initial conditions of the outflow streams observed by PUNCH. This talk will review the potential opportunities for CODEX and PUNCH joint science.
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