

Recent Advances in Chinese Polarimetric Satellite Observations

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Polarimetric satellite observations provide valuable information for aerosol retrieval due to their sensitivity to microphysical properties. Over the past decade, China has developed a series of polarimetric sensors, including the Directional Polarimetric Camera (DPC) series, the Synchronization Monitoring Atmospheric Corrector (SMAC), the Polarized Scanning Atmospheric Corrector (PSAC), and the Particulate Observing Scanning Polarimeter (POSP). These instruments have contributed to the improvement of polarimetric measurement capabilities.

Recently, the Cloud and Aerosol Polarimetric Camera (CAPC) onboard the DQ-2 satellite was launched in April 2026, aiming to further improve polarimetric measurement capabilities. This talk focuses on CAPC/DQ-2, including its instrument characteristics and initial developments in aerosol retrieval, highlighting its contribution to the field of polarimetric remote sensing and its related applications.

Preferred mode of presentation: Invited