

DEVELOPMENT OF THE FULL-DISK VECTOR MAGNETOGRAPHS FOR THE MERIDIAN PROJECT II

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The Meridian Project II aims to establish a comprehensive ground-based monitoring network for China's space environment. Our team is responsible for the development of a major instrument within this project, the Full-Disk Vector Magnetograph (SFMM). The core component of SFMM, the "Liquid Crystal Waveplate-Based 0.085-Å Extremely Narrowband Birefringent Filter," represents a groundbreaking achievement by integrating four-channel full-disk imaging spectroscopy for FeI, H α , H β , and CaII for the first time. This report outlines the development progress and observational results of the SFMM.