



Observing the evolution of the Sun's global coronal magnetic field over 8 months Zihao Yang¹, Hui Tian²

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The magnetic field in the Sun's corona stores energy that can be released to heat plasma and drive solar eruptions. Measurements of the global coronal magnetic field have been limited to several snapshots. In this work, we present observations, using the Upgraded Coronal Multi-channel Polarimeter, that provide 114 magnetograms of the global corona above the solar limb spanning ~8 months. We determined the magnetic field distribution with altitude in the corona and monitored the evolution at different latitudes over multiple solar rotations. The field strength between 1.05 and 1.60 solar radii varies from <1 to ~20 gauss. A signature of active longitudes appears in the coronal magnetic field measurements. Coronal models are generally consistent with our observations, though they have larger discrepancies in high-latitude regions.

References

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