The Rising Phase of Solar Cycle 24: General Solar Wind, Large-Scale Solar Wind Structures, and Sector Asymmetry


1Inst. Geophysics & Planetary Physics, Dept. Earth & Space Sciences, UC Los Angeles, CA, USA (lianjan@ucla.edu)
2Space Sciences Lab., UC Berkeley, CA, USA
3Predictive Science, Inc., CA, USA
4Stanford Univ., CA
5Goddard Space Flight Center, NASA, MD, USA
6George Mason Univ., VA, USA
7National Solar Observatory, NM, USA

Abstract: This paper discusses the properties and dynamics of the rising phase of solar cycle 24, focusing on the solar wind and geomagnetic activity. The solar wind speed reaches a peak, and the IMF becomes more variable. The polar magnetic field reverses, and the geomagnetic activity increases. The paper presents several figures and tables illustrating these phenomena.

1. Solar Background

2. Solar Wind and Geomagnetic Activity

3. Stream Interaction Regions (SIRs) and Interplanetary CMEs (ICMEs)

4. North-South Asymmetry in Solar Wind and IMF

Summary of the Poster

Acknowledgements: This work is supported by NASA/NASSEP program through Grant NNX09AQ36G to JGL and the NSF AGS program through Grant AGS-1062105. The authors wish to thank all the people who have contributed and maintained the OMNI data in NASA/ACE. The authors wish to thank all the people who have contributed and maintained the OMNI data in NASA/ACE.

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