

Janet
Luhmann
SSL UC Berkeley
Yan Li, SSL UC Berkeley
Christina Lee, SSL UC Berkeley
Lan Jian, NASA GSFC
Nick Arge, NASA GSFC
Pete Riley, Predictive Science Inc.
Oral

Each solar cycle, the magnetic field observed on the solar surface exhibits an evolutionary pattern that is broadly repeatable but unique in its detail. This results in coronal structure that is similarly unique, including the coronal holes and streamers producing the solar wind in the ecliptic plane. Magnetograph data-based PFSS models provide a basic picture of how the solar wind sources of solar wind, including high speed streams in the ecliptic, have changed over the ~4 solar cycles since the beginning of the record of regular solar wind measurements. In particular, they suggest the contributions of low to mid latitude holes dominate weak cycles-impacting upstream measurement interpretations, modeling considerations, and planetary responses.

[Download to PDF](#)