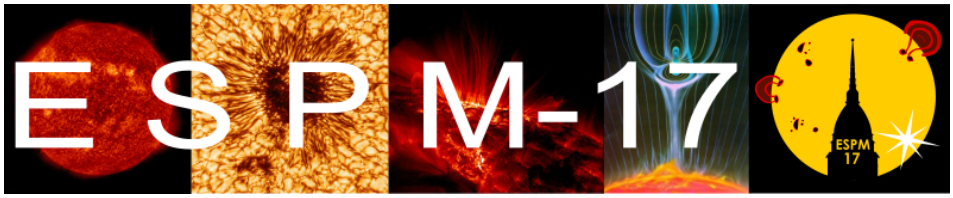

Contribution ID: **321** Type: **Poster**

Solar Cycle Variation of the Distribution of Photospheric Magnetic Flux Features Using SDO/HMI

We use statistical tools to analyse data from the Solar Dynamics Observatory Helioseismic and Magnetic Imager to determine the distribution of the magnetic flux of photospheric magnetic features and its variation over a full solar cycle.

We use statistical figures of merit to test how well different types of probability distribution function represent the magnetic flux distribution inferred from the data and how their shape changes over the solar cycle.

Our analysis indicates that a double power law provides the best representation of the data over the full solar cycle and we discuss the variation of the power law exponents with the phase of the solar cycle.

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Session Classification: Coffee break and poster session 1

Track Classification: Solar interior, sub-surface flows and long-term variability