



Contribution ID: 45

Type: **Poster**

Temporal evolutions of fractional Ca-K plage area measured at Kodaikanal Observatory

The “Equal-Contrast technique” (ECT) methodology is developed to generate uniform long time series of Ca-K images obtained during the 20th century from the Kodaikanal Observatory (KO), India for studying the long- and short-term variations in the solar chromosphere. We investigate temporal and periodic variations of the fractional Ca-K plage area time series of the full solar disk for cycle 14 -22. We have studied the correlation between the fractional plage area and sunspot number for each cycle under study. We have found the prominent presence of different intermediate term periodicities in the plage area data along with the ~ 11 year solar cycle period. Possible interpretations of our findings are discussed with the help of existing theoretical models and observations.

Contribution Type

Poster

Theme

Solar Magnetism over Long-Time Scales

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