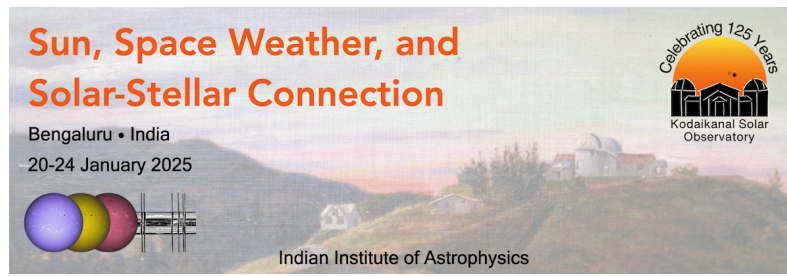


# Sun, Space Weather, and Solar-Stellar Connection



Contribution ID: 128

Type: **Invited review talk**

## A High Resolution View of Solar Magnetic Fields

*Tuesday, January 21, 2025 8:30 AM (25 minutes)*

We cannot directly observe the magnetic field vector on the surface of the Sun, only infer it from observations using a model. Therefore, our ability to obtain an accurate picture of the magnetic topology, strength and connectivity in the outer layers of the Sun, relies on having high signal-to-noise observations and a robust model that can be used to fit the observations. Such requirements are particularly hard to achieve in the chromosphere, where non-LTE conditions must be included in the modelling of spectral lines and where spectral lines are weakly sensitive to the magnetic field.

In this review, I will cover a selection of recent developments in the inference techniques, the state-of-the-art in solar observations and new results from the solar community in relation to high resolution solar magnetic fields.

### Contribution Type

### Theme

Solar Magnetism in High-Resolution

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