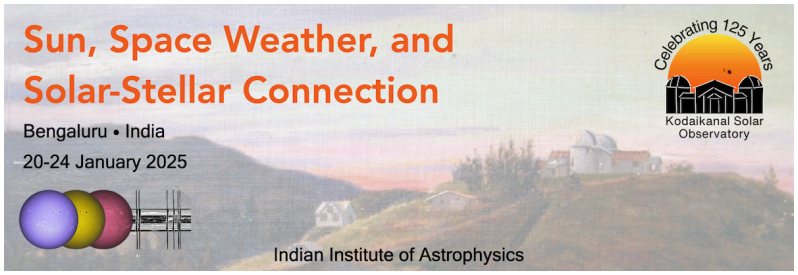

Contribution ID: **158** Type: **Poster**

Denoising Helioseismic Far-Side Images

Helioseismology can detect active regions on the Sun's far side days before they rotate onto the Earth's side, using solar acoustic oscillations. These far-side maps provide an important input for space weather models. Recent advances in theoretical and computational helioseismology have improved far-side imaging, which enables high-confidence detection and daily tracking of medium-size active regions. However, these images still suffer from substantial noise due to the stochastic nature of the oscillations. Our study aims to denoise these images by implementing spatial and temporal filters in spectral space to mitigate this noise.

Contribution Type

Theme

Connecting Solar Corona to Heliosphere

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