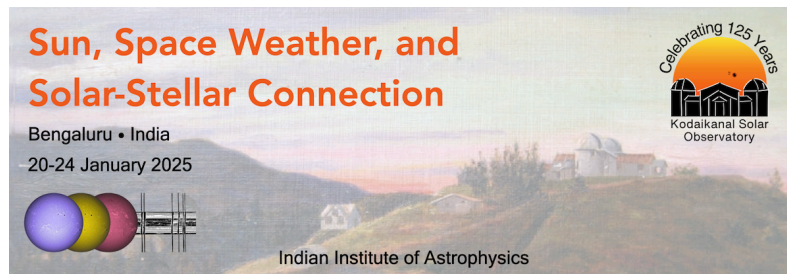


Sun, Space Weather, and Solar-Stellar Connection



Contribution ID: 115

Type: **Contributed talk**

A Unified Family of Mixed Inertial Modes in the Sun

Monday, January 20, 2025 11:40 AM (15 minutes)

In this talk, I will present an analytical model that unifies many of the solar inertial waves as a single family of mixed inertial modes. Here, mixed modes refer to the prograde- and retrograde-propagating members of this family. Thermal Rossby waves exist as prograde-propagating waves, while the high-frequency retrograde (HFR) wave is possibly a member of the retrograde branch. The higher overtones may correspond to many of the inertial modes that have been recently identified by numerical eigenmode solvers. I will also discuss some properties of the mixed modes in the context of this model.

Contribution Type

Theme

Solar Magnetism over Long-Time Scales

Primary author: JAIN, Rekha (University of Sheffield)

Presenter: JAIN, Rekha (University of Sheffield)

Session Classification: Solar Interior Dynamics