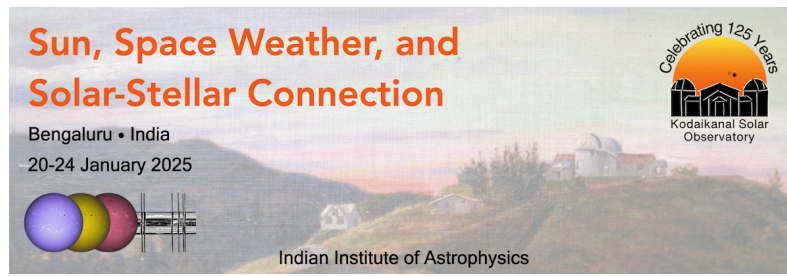


Sun, Space Weather, and Solar-Stellar Connection



Contribution ID: 56

Type: **Invited review talk**

Solar Chromospheric Dynamics

Tuesday, January 21, 2025 10:45 AM (25 minutes)

I will review recent progress in observations and numerical simulations of the dynamics of the solar chromosphere. During the last decade, novel high-resolution space-based and ground-based instrumentation has provided new views of the role of shocks, jets, waves, and magnetic reconnection in the dynamics and energetics of the chromosphere and the layers above. These observations have been accompanied by advances in state-of-the-art numerical modeling of the partially ionized chromosphere, including ion-neutral interactions and multi-fluid effects, providing novel insights into the physics that drive the dynamics of the solar chromosphere. I will review how the synergy between observations and modeling is key to make advances in our understanding of this critical layer in the Sun's atmosphere. I will also discuss the impact of chromospheric dynamics on the transition region and beyond.

Contribution Type

Theme

Solar Magnetism in High-Resolution

Primary author: DE PONTIEU, Bart (Lockheed Martin Solar & Astrophysics Laboratory)

Presenter: DE PONTIEU, Bart (Lockheed Martin Solar & Astrophysics Laboratory)

Session Classification: Solar Chromospheric Dynamics