ISHA 2026 ABSTRACT CATEGORY AND SESSION DESCRIPTIONS

Session 1: Solar Interior and Surface

(Dynamo, SFT, Helio-seismology, Photosphere)

In this category, we welcome research works that probe the physical processes operating beneath the Sun's surface and how they manifest in the photosphere. If your study offers new insights into dynamos, surface flux transport, helioseismology, or photospheric dynamics, this is the ideal place for your abstract.

Session 2: Solar Atmosphere

(Chromosphere, Inner, Middle, Outer Corona)

This session focuses on the physical processes that shape the solar atmosphere from the chromosphere and transition region through the inner, middle, and outer corona. We invite contributions that probe how mass and energy are transported, dissipated, and converted across these layers, including atmospheric heating, wave generation and propagation, magnetic reconnection, small-scale structuring, and other dynamic phenomena. Contributions focusing on the coupling between the chromosphere, transition region, and corona are encouraged.

Session 3: Solar Eruptive Phenomena

(Initiation and Near-Sun Evolution)

This session targets the fundamental physics governing the onset of solar transients. We invite contributions focused on the initiation of solar flares and Coronal Mass Ejections (CMEs), including magnetic flux emergence, pre-eruptive configurations, and reconnection physics. This session emphasises multi-wavelength remote sensing observations alongside numerical MHD and magnetofrictional modelling.

Session 4: Heliospheric Structures and Transients

(Transients, Solar Wind, and Interplanetary Dynamics)

This session explores the evolution of the solar wind and transients as they propagate through interplanetary space. We welcome studies on CME propagation, including CME-CME and CME-Solar Wind interactions, as well as the transport of Solar Energetic Particles (SEPs). Contributions utilising multi-point in-situ measurements, interplanetary scintillation, and heliospheric modelling are encouraged to address plasma turbulence, stream interaction regions (SIRs), and the dynamic modification of structures in the heliosphere.

Session 5: Magnetosphere-Ionosphere-Thermosphere and their Coupling

This category welcomes abstracts on how the coupled magnetosphere – ionosphere – thermosphere (MIT) system responds to and influences space weather. Submissions may include observational, theoretical, or modelling studies of key geospace processes, such as solar wind disturbance-driven currents, ionospheric electrodynamics, thermospheric variability, and comparative planetary coupling, relevant to space weather science and forecasting.

Session 6: Space Weather Forecasting and Operations

(Forecasting pipelines, operational models, satellite drag)

Bridging the gap between research and operations, this session focuses on the tools and models used to predict space weather impacts. Specific interest is given to forecasting models (e.g., solar wind, CMEs, solar flares, satellite drag, radiation environment) and to the transition of theoretical models into operational environments.

Note: Research involving solar or space instrumentation should be submitted under the most appropriate category listed above, based on the primary scientific focus and application of the instrument.