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Poster

The ISWAT clusters H1+2 have focus on interplanetary space and its characteristics, especially large scale transient and recurrent structures impacting Earth. Solar wind stream interaction regions generated by the interrelation between large scale open and closed coronal magnetic fields generate periodically recurring regions of compressed plasma and magnetic field followed by high-speed streams. Short-term reconfiguration of the lower coronal magnetic field generates flare emission and provides energy to accelerate enormous amounts of magnetized plasma and particles into interplanetary space. The dynamic interplay between these phenomena changes interplanetary space on various temporal and spatial scales and has effects on the propagation behavior of individual events. Modelling efforts showed that the available observational input is affected by rather large uncertainties, making reliable forecasts difficult. Moreover, the complexity of interplanetary space certainly increases with enhanced solar activity that models cannot cover. Only by joining forces we gain more knowledge about the relation between the different phenomena, underlying physical processes to improve models and to provide better Space Weather forecasting. We present teams, their recent progress and upcoming goals, within the international community effort iSWAT with focus on the heliosphere.

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