
PEM036-14

Room: Function Room A

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What is the solar influence on climate- Task Group 1 in CAWSES-II

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Solar activity varies over a wide range of timescales from minutes to millennia. Though the amplitude of the variations is very small in comparison with the magnitude of the total solar radiance, the solar variability has potential to drive changes of the atmosphere of the Earth. The Task Group 1 in CAWSES-II focuses on such solar influence on the atmosphere through some amplification processes in the Earth system. In particular, the following scientific issues are to be investigated in this task group: (1) What is the effect of transient solar events on the middle and lower atmosphere? (2) What are the uncertainties in establishing the long-term direct solar effect upon climate? (3) How to quantify and numerically test indirect solar effects upon climate? As well recognized, the influence of this solar variability on climate is also a key issue of the Intergovernmental Panel on Climate Change (IPCC). In this talk, the current status of our understanding on these issues is to be reviewed and study plans are to be discussed.

Keywords: solar activity, climate, CAWSESII