SEMINAR

專題演講

國立中央大學 太空科學與工程學系

Department of Space Science and Engineering, National Central University

Time

Thursday, April 10, 2025
12:00 – 13:00

Place

健雄館(科四館)

S4-917 教室
Room S4-917,
Chien-Shiung Building

Solar vortices and their importance for waves excitation and energy transport.

Prof. Viktor Fedun
University of Sheffield

Vortical motions can be described as the “sinews and muscles of fluid motions”. In the intergranular lanes of the Sun’s photosphere where this type of motion is ubiquitous, crucially,the interaction of vortices with the magnetic field can also drive the atmospheric dynamics of the chromosphere and beyond. It has been shown by both high-resolution observations and magnetoconvection simulations that groups of vortex tubes appear and disappear in a “bursty” manner.It is important for MHD waves generation as vortices can excite broadband frequency propagating disturbances. What is key to understanding how vortex tubes contribute to the dynamics of the solar atmosphere is how neighboring vortices form communities and interact with one another. In my talk, I will provide an overview of various vortical motions present in the solar atmosphere, methods of their identification, their ability to support MHD waves generation and propagation as well as their contribution to the energetics of the solar atmosphere.

※備有餐點，歡迎聆聽※

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