
PEM021-05

Room: Function Room A

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What causes the recent weak solar wind ?

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Alfven waves are believed to play an important role in accelerating solar winds. We have pointed out the instability regarding the dissipation of nonlinear Alfven waves in solar (& stellar) atmosphere through wave reflection and gas heating (Suzuki & Inutsuka 2006).

As a result, the properties (e.g. density) of solar winds sensitively depend on the perturbation amplitude at the surface (photosphere).

In this talk, I plan to introduce the mechanism of the instability by using the results of numerical simulations, and discuss the recent weak solar wind mass flux.

Keywords: MHD waves, Solar wind, Nonlinear processes, Heating, Acceleration