

***** 1st ISEE/CICR colloquium *****

Speaker: Syun-Ichi Akasofu

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Date and time: October 27 (Tue) 15:00-16:30

Place: Room 301 of the Institute for Space-Earth Environmental Research

Title: Auroral substorms and solar flares

Abstract: Both auroral substorms and solar flares have many close morphological similarities, as well as magnetic energy as their source of energy. A study of auroral substorms has an advantage of studying them in terms of the input-output relationship on the basis of ground-and satellite-based observations. It is shown that the epsilon function is the power (in watts) of the solar wind-magnetosphere interaction; auroral substorms are a manifestation of dissipation processes of the power. Solar flares are examined in a similar way, namely the input-output relationship on the basis of the epsilon function. In fact, the epsilon function may be applicable in astrophysical problems. A new idea of the formation of single (solitary) spots and pairs of spots is also discussed.