

A prospective view of advanced space weather study in Japan in the 2020s

*Kanya Kusano¹

1. Institute for Space-Earth Environmental Research, Nagoya University

Space weather forecast plays an important role to maintain and protect the highly informative infrastructure of modern society. The role of space weather forecast will increase in future when the human society becomes more informative and advanced. There are two kinds of ways to improve the space weather forecast. One is the extension of observation, and the other is the development of a new predictive scheme. In this panel discussion, we will talk a prospective view of advanced space weather study in Japan in the 2020s. In particular, we like to emphasize how important is to develop a new algorithm to maximize the information to predict the space weather dynamics. The data-driven and data-constrained numerical simulations are the most prospective ways for that purpose. However, many challenging subjects remain to obtain the reliable prediction based on the realistic simulations based on observed data. We try to clarify what are the difficulties and how we can resolve them.

Keywords: space weather forecast, prediction, simulation