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COMPARISON OF MHD SIMULATION FOR THE FEBRUARY 1986 EVENTS WITH INTERPLANETARY OBSERVATIONS BY THE SPACECRAFT SAKIGAKE

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ABSTRACT

During the epoch of 3–10 February 1986 a series of major solar flares occurred on the sun and several intense geomagnetic storms took place on the earth. To examine the causality between the solar activity and the geomagnetic activity in this epoch, an MHD numerical simulation was performed, using a 2½-D numerical code. In that epoch of February 1986, the Japanese spacecraft Sakigake was at 0.84 AU, 57° west of the earth. Besides the in–situ measurements of the interplanetary plasma, Sakigake also provided Doppler scintillation observations. In this paper we present comparisons between the results of MHD simulation and the measurements made by the spacecraft Sakigake.

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