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A study of the relevant magnitudes involved in triggering intense geomagnetic storms

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Technological systems require of the scientific community to provide trustworthy alerts for intense storms. This kind of alerts needs inputs from the interplanetary medium in order to forecast the geomagnetic activity in real time. Different input data have been analyzed in this work, such as z-component of magnetic field vector and solar wind velocity. Our preliminary results indicate that discontinuities of Bz in a time interval of the order of the time of response of the magnetosphere (joint to high solar wind velocity) could be considered as a good input to forecast intense storms. This goodness is not only based in the great number of hits, but also in the low number of false alerts.