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How the Fluctuation Amplitude of the Interplanetary Magnetic Field's Z Component Affects Geomagnetic Storm Strength CEZANNE NARCISSE, SPENCER DURRENBERGER, JAIME STERRETT, SOHA ASLAM, KEVIN PHAM, RAMON LOPEZ, University of Texas at Arlington — A corotating interacting region (CIR) is a region of compressed solar wind caused by a high speed stream (speeds >500 km/s) that catches up to slower solar wind in which the source corotates with the sun. We are collecting data to find two case in which proton density, solar wind speed, and average magnetic field are similar except for the fluctuation amplitude of the interplanetary magnetic field's (IMF) z component. We used geomagnetic indices to quantify their related geomagnetic storm strengths. Our goal is to compare the geomagnetic storm strengths caused by the IMF's fluctuation in CIRs.

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