



Lightning on Saturn recorded by Cassini/RPWS in the year 2004

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The characteristics of SEDs (Saturn Electrostatic Discharges) recorded by the Cassini/RPWS (Radio and Plasma Wave Science) experiment in the year 2004 were quite different compared to the Voyager era. Four distinctive storm systems with different burst rates and reoccurrence periods lasted for several days up to one month. The most intense storm was in September 2004, and since then SEDs were practically absent until the end of the year. We present some statistical properties of SEDs with regard to occurrence numbers, intensity, frequency distribution of events, flash rates, and time duration of events and episodes. We also report that SEDs were detected down to a frequency of 1.5 MHz, which is much higher than the low-frequency SEDs of 20 kHz recorded during the southernmost extremity of Voyager 1's closest approach.