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Electrostatic fields observed during the CHUVA campaign

Observing the Electric Field Mill measures during a thunderstorm, is notable the increased of electrostatic field associated with the electrification processes before the lightning occurrence. On CHUVA experiment, electrostatic field measurements were done by Field Mill network on 3 sites: in Belém – PA where the Field Mill network had 3 sensors, Vale do Paraíba – SP with 4 sensors and finally in Santa Maria – RS that had the network with 5 sensors. Based on Electric Field Mill measures, the lightning occurrence was identify and studied the frequency of occurrence of electrical field values for 2 minutes before of each discharge. Values above 2000 V/m are most common in Belém – PA and Santa Maria – RS than Vale do Paraíba – SP. In Belém – PA the thunderstorms charge centers were often negative while in the Vale do Paraíba – SP and Santa Maria – RS, the polarity positive or negative, were more balanced.

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