

Study of the High Energy Emissions Related with Lightning and Thunderstorm

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The gamma rays emissions from Earth to space were accidentally discovered for the BATSE instrument on board of CGO satellite. Since then there were, and are, several efforts to understand this phenomenon and its connection with lightning and thunderstorms. In this work we plan to combine satellite and ground based measurements of high energy emissions from thunderstorms, preferably in South America, to examine the characteristics of the emissions in this region and their related lightning and thunderstorm sources. One of the parameters to be investigated is the energy distribution of the emissions. We will also address the possible link with lightning, and the lightning characteristics.