

# Lightning and Rainfall at the Southeast of Brazil: a comparison study

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**ABSTRACT:** In this study it was conducted a comparison of lightning and rainfall data with the aim of studying the correlation between both phenomena in the Southeast of Brazil, since it is well know that it is strongly dependent on the geographic location. The rainfall data were obtained by surface automatic stations and lightning data - intra-cloud (IC) and cloud-to-ground (CG) were obtained by LS7000 sensors belong to the Brazilian Lightning Detection Network (BrasilDat). The comparison was done in the summer seasons of 2008-2009 and 2009-2010 at the Southeast of Brazil. Lightning data were selected in the region around the rainfall stations considering different distances to the station. Geoprocessing techniques and specific application software (TerraView and Sismaden) developed by the National Institute of Space Research (INPE) was utilized to extract and analyze relevant information from these data.

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