

# **First Spectroscopic Observations of Lightning in Brazil**

## Lightning Physics

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Preliminary data of the spectral characteristics of negative and positive cloud-to-ground lightning will be obtained for the first time in Brazil. Based on recordings of a high-speed camera (Phantom V9.1 Model) coupled with a grism (diffraction grating plus prism) variations of temperature and density of the lightning channel related to altitude during return stroke and related to time during the continuing current are intended to be assessed. The high-speed data will be complemented with slow electric field, fast electric field and BrasilDAT total lightning network data. The observations will be conducted in the months of January, February and March 2014 at a 24-m tower located in São José dos Campos, São Paulo, Brazil.