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Model of an unusual Gigantic Jet observed from Indian Subcontinent during the Monsoon.

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Gigantic jets are discharges that initiates from the top of some thunderclouds reaching the bottom ionosphere. The first observations of Gigantic Jets were made in 2002 over the Caribbean Ocean and were followed by several sporadic observations. In this presentation, we report on the first events that had been observed during the monsoon season over the Indo-Gangetic plains in 2013 and 2014 focusing on some of their pellicular characteristics.
The analysis of the electromagnetic signatures together with the video recording show that they are of negative polarity, that they propagated ∼37 km up in ∼5 ms and that they disappeared within ∼40–80 ms, which is faster compared to jets reported earlier. We emphasis on a gigantic jet with an unusual appearance: the jet does not propagate strictly vertically but is twisted with a horizontal displacement of ∼10km occurring at about ∼50km.
In the presentation, we will emphasis on the results from a simulation based on a step by step modelling of leader propagation. The simulation reproduces the unusual appearance observed and suggests the twisted jet has been produced by a thundercloud with misaligned vertical charge distribution.