

Physics and Space Sciences Department Colloquium

## *Lightning into Space*

by:

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The recent discovery of brief illuminations above thunderclouds has attracted the broadest interest by the public media. These illuminations are termed sprites, gigantic jets, elves, halos, and blue jets. Sprites for example are reddish illuminations of the Earth's atmosphere ranging from ~40-80 km height and extending up to ~50 km in width. Sprites are seen above the largest thunderstorms on planet Earth, and they are mainly initiated by exceptionally strong positive lightning flashes to the ground. Recent research on sprites focused on their impact on the Earth's atmosphere and in particular on the possibility to be associated with natural particle accelerators above our heads. These novel phenomena demonstrate that the area above thunderstorms is one of the least well known 'terra incognita' of the Earth's atmosphere and many more discoveries are expected in the years to come.

**Friday, March 18, 2016**

**4:00-5:00 PM**

**OPS Room 140**

Light Refreshment will be served