

## Morphology of Sprites Observed above Japan in Winter

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It is well known that sprites occur in the mesosphere by positive cloud-to-ground (CG) lightning discharges above North America, Brasil and Austraria in summer. However, observation of sprites have never been performed in Japan. In December 1998 and January 1999, we have succeeded in observing sprites for the first time above Japan in winter. We operated an image intensified CCD camera (IICCD) and other optical instruments at Dodaira National Astronomical Observatory(), and obtained the images of sprites for 26 events. We have found that there are some interesting types different from typical "column-sprites" and "carrot-sprites". We have classified the observed sprites based on their shapes and compared them with sprites observed in Colorado, the United States.

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