

space-time Structures of Sprites Observed above Japan in Winter

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Transient optical emissions in the middle atmosphere called sprites have been observed only in North America, Brazil and Australia in summer. Our observation at Yucca Ridge Field Station (40.7N, 104.9W), Colorado, USA revealed that the space-time structures of sprites. In order to capture Japanese sprites in Japan, we carried out optical observations with multi-anode Array Photometers (MAPs) and CCD cameras in the periods of 17-26 December 1998 and 22-27 January 1999 at Dodaira Astronomical Observatory (36.0N, 139.2E). We succeeded in observing 21 sprites, which appeared above the Sea of Japan near the Hokuriku region. We have analyzed the MAP data in detail for 5 events to investigate the space-time structures.

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