

*Hinode-3: 3rd Hinode Science Meeting
Hitotsubashi Memorial Hall, Tokyo
1-4 December, 2009*

Micro-sigmoids as progenitors of coronal jets

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Abstract. Observations of the X-ray telescope (XRT) on Hinode are used to study the nature of bright points sources of coronal jets. Several jet events are found to erupt from S-shaped bright regions. The latter suggest the presence of coronal micro-sigmoids as progenitors of the jets. The present observations provide explanation of numerous characteristics of coronal jets, such as helical structures, apparent transverse motions, and shapes. They also suggest that solar activity may be self-similar within a wide range of scales in terms of both properties and evolution of the observed coronal structures. These results provide new insights on the physical processes that are at the origin of numerous solar phenomena, such as the solar wind.