Loop top nonthermal emissin sources associated with an over-the-limb flare observed with NoRH and RHESSI

A. Asai (1), H. Nakajima (1), M. Oka (2), K. Nishida (2) and Y. Tanaka (3)

(1) Nobeyama Solar Radio Observatory, NAOJ (asai@nro.nao.ac.jp), (2) Kyoto University, (3) University of Tokyo

The finding of loop-top hard X-ray (HXR) emission sources (Masuda et al. 1994) is one of the most important results achieved with Yohkoh satellite. We studied the M3.7 class flare which occurred on 2005 July 27, in the active region NOAA 10786. This flare is an over-the-limb flare, and the footpoints are occulted by the solar disk. The microwave and the HXR images obtained with the Nobeyama Radioheliograph and the RHESSI satellite, respectively, clearly showed emission sources above the post-flare loop system. We examined the emission sources in detail spatially, temporally, and spectroscopically. As a result, one of the HXR emission sources and the microwave emission source are nonthermal.