ALIGNMENT OF RADIO, SOFT X-RAY, HARD X-RAY IMAGES OF SOURCES IN IMPULSIVE AND GRADUAL PHASES OF THE FLARE OF 1992 AUGUST 17–18

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Abstract

This is a preliminary report concerning an impulsive flare, which occurred on 1992 August 17–18, and was observed with the Nobeyama Radioheliograph, Yohkoh, and ground-based instruments. Emphasis is put on the alignment of radio images as well as soft X-ray and hard X-ray maps, which are compared in both impulsive and gradual phases. In the impulsive phase, which continued for about 30 s, nonthermal emission was most remarkable at 17 GHz, and was also seen in hard X-rays at the southern part of the SXT source, which was about 14" width and 80" long, extending in the north-east to south-west direction. Thermal emission was detected in soft X- rays and possibly in hard X-rays at the northern part. During the gradual phase, about 80 s after the onset of the impulsive phase, thermal emission dominated and was located at the northern part of the source over the entire energy range. Difficulties are discussed concerning a possible simple topology of the magnetic fields. Note: This is the abstract of the Letter published PASJ 46, L27-31 (1994)

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