hard x-rays mimic each other closely. The FeXXI band radiation from the same spatial points generally peaks later. When the flares occur at the limb fainter loops appear and peak later still.

G.3 Numerical Simulation of a Cooling Flare: A Pop for Application to X-ray Flare Spectra. G.A. DOSCHEN, J-P. BORIS, J.T. MARISKA, and E.S. ORAN, Naval Res. Lab. - As a first step toward understanding soft X-ray emission from solar flares, we consider the cooling of a magnetic flux tube using the NRL Solar Flux Tube Model described at this meeting by Boris et al. The model assumes that soft X-ray flare emission arises in a closed magnetic flux tube in which plasma behavior is described by solving numerically the 1-D MHD fluid equations including conductive and radiative losses. A spectroscopic diagnostic program is part of the MHD package and at present describes the time-dependent non-equilibrium ionization and recombination of oxygen ions. Initial conditions for the flux tube are determined from experimental results taken from the Naval Research Laboratory and Aerospace Corporation Bragg crystal X-ray spectrometers (SOLPLEX and SOLIX respectively) on board the P78-1 spacecraft. These instruments record X-ray spectra of flares that include emission lines in the temperature range $2 \times 10^6$ - $2 \times 10^7$ K. The behavior of the plasma during cooling is calculated and the results are compared to observational data. This work was supported by the NASA Solar Terrestrial Theory Program and the Office of Naval Research.

G.6 A study of a soft X-ray event associated with the commencement of a Type I noise storm. C.G. RAPLEY, R.D. BENTLEY, Mullard Sp. Sci. Lab., P. LANTOS, A. KERDRAON, Observatoire de Paris, Meudon, Dept. D'Astrop. Solaire et Planetaire - Groupe du Radioheliographe. On 30 Mar 80 a transient spatially extended soft X-ray emission feature appeared in the location of an active filament associated with AR2363. The event exhibited all the characteristics of a classical soft X-ray long duration event but in addition was associated with the commencement of a type I noise storm imaged by the Nancau radioheliograph. It appears that the activity was triggered by a small flare although some pre-event heating was also observed.

G.7 Observations of Type IV Microwave Emission from Behind-the-Limb Flares. E.W. CLIVER, AFGL. For certain large flares occurring behind the solar limb, the Type IV microwave emission originating above the occcluding edge of the disk is clearly separated (more or less) from the lower lying impulsive component. We present instantaneous spectra of this "pure" Type IV microwave component for a few such events observed at Sagamore Hill. The events considered were located at a range of distances beyond the limb. The variation of the decay rate of these bursts with frequency and time is also discussed.


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