George L. Withbroe and Jorge E. Vernazza: 'Active Region Flare Rates and 8.6 mm Brightness Temperatures'. (Received 8 April; in revised form 10 May, 1976.)

The relationship between the flaring rates and 8.6 mm brightness temperatures of active regions has been analyzed. We find that as the 8.6 mm brightness temperature of an active region increases, a larger proportion of the energy released by the region in the form of flares is contained in progressively larger flares. At all temperatures subflares are the most frequent event. At intermediate and high temperatures about 10 per cent of the events are flares of importance 1 or larger with flares of importance 2 or larger contributing an increasing fraction of these events as the brightness temperature increases.

Oddbjørn Engvold: 'The Fine Structure of Prominences. I: Observations – Hα Filtergrams. (Received 29 April, 1976.)

The fine structure of nonspot prominences are studied from Hα filtergrams. The size of the smallest prominence structures increases with height above the chromosphere. Some prominences contain structures close to $\frac{1}{2}$ arc second, which is the spatial resolution in the present data. The effective thickness of many nonspot prominences ranges between 4×10^7 cm and 1.5×10^8 cm. An apparent downward directed motion is observed in the majority of the prominences. No preferred direction of the motion is seen in regions composed of comparatively large diffuse structures. Some bright threads are visible for 1 hour and longer. Bright knots have an average observed lifetime of about 8 minutes. The process of condensation and subsequent destruction of prominence fine structure appears to take place on a very short time scale compared to the life time of the regions where prominences may exist. The observed Hα brightness of the prominences in the present data may be accounted for as scattered chromospheric radiation.

J. McKim Malville: 'The Fine Structure of Prominences. II. Vertical Flux Ropes and Filamentary Structure'. (Received 23 April; in revised form 17 May, 1976.)

Ions falling in vertically aligned magnetic structures of quiescent prominences may experience a vertical Lorentz force as flux ropes are distorted from the force-free condition. The terminal velocity of such ions may be sub-Alfvénic and may correspond to the 5–15 km s^{-1} velocity of down falling material observed in many quiescent prominences. The higher velocities of down falling material found in active prominences and coronal rain may occur because of higher terminal velocities occurring in stronger magnetic fields.

ERRATA

In the paper entitled 'Proton Collisional Excitation in the Ground Configuration of Fe^{+12}', by Donald A. Landman, in *Solar Phys.* **30,** 371–380, the following typographical errors should be noted: (i) in Equation (1), $Y_{2\mu}(\pi/2, \theta)$ should read $Y_{2\mu}(\pi/2, 0)$; (ii) in Equation (6), $(\lambda/2\pi)^2$ should read $(\lambda/2\pi)^5$; (iii) the figure captions 4(a) and 4(c) should be interchanged; and (iv) the lower curve labeled $^3P_2$ in Fig. 5(a) is properly labeled $^1D_2$.

In the paper entitled 'Proton Collisional Excitation in the Ground Configuration of Fe^{+12}, II', by Donald A. Landman, in *Solar Phys.* **31,** 81–89: on p. 83, 5 lines from the bottom, multiply $P(b_0)\pi b_0^2$ by v_i/v_f where v's are the initial and final relative asymptotic speeds.