ERRATUM

In the paper, "Cosmic Flare Transients: Constraints upon Models for Energy Storage and Release Derived from the Event Frequency Distribution" by R. Rosner and G. S. Vaiana (Ap. J., 222, 1104 [1978]), the observed frequency of flaring from flare stars as a function of total flare energy (in the optical; Lacy, Moffet, and Evans 1976) shown in Figure 2 was not explicitly defined in the text. The histogram shown is the accumulated frequency distribution \( \varpi(E) \), defined by Gershberg (1972) as

\[
\varpi(E) = \int_{\varpi_0}^{\infty} d\varpi_0(E) ,
\]

where \( \varpi(E) \) is the differential frequency distribution discussed in the text; this distinction was not made in the text or in the published reference from which the figure was drawn. The flare star data (but not the solar or burster transient data) should therefore be modeled by the integral frequency distribution (rather than by eq. [3.30], from which it is derived)

\[
\varpi(E) = \varpi_0^\gamma (1 + E/E_0)^{-\gamma} ,
\]

where \( \varpi_0 = E_0 \varpi_0 \) and all other parameters are as previously defined. An example of the fit of equation (2) to the data is shown in the accompanying figure; the value of \( \gamma = 3.2 \) used for the fit has not been optimized by least-\( \chi^2 \) fitting. As is evident from the figure, the proposed model provides a good description of the flare star observations, and the conclusions drawn in the paper are hence unaffected. Whether the observed leveling off at low flare energies is due to an observational (rather than an intrinsic) cutoff remains uncertain; however, examination of sample data provided to us by C. H. Lacy strongly suggests that observational selection effects ("visibility") dominate, though quantitative estimates are difficult to obtain (C. H. Lacy, private communication). The authors thank Dr. K. Kodaira for pointing out the discrepancy between the text and Figure 2 and Dr. C. H. Lacy for a very informative discussion of the flare star data.

![Figure 2](image)

**Fig. 2.** — Integral frequency histogram of optical flare occurrence from UV Ceti, plotted against the total flare energy radiated in the U passband for each flare (from Lacy et al. 1976). The pure power-law fit (dashed line) is due to Lacy et al., and was calculated for the high-energy events only; the remaining fit (solid curve), which has not been optimized by least-\( \chi^2 \) fitting, uses equation (2) and is characterized by \( \gamma \approx 3.2 \). The significance of the fit at low flare energies is uncertain in light of the likely dominance of "visibility" effects (C. H. Lacy, private communication).

REFERENCES