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Poster

4. Eruptions in the solar atmosphere

# IRIS Ultraviolet Spectral Properties of a Sample of X-Class Solar Flares

E. Butler[1]

White-light (near-ultraviolet (NUV) and optical) continuum emission comprises the majority of the radiated energy in solar flares, but its physical origin is currently not well understood. Many different emission sources (e.g. blackbody or optically-thin hydrogen recombination) appear consistent with the white-light data, and modeling with electron beam heating has only recently been able to reproduce observations of high NUV continuum-to-line ratios along with the line profiles. Furthermore, there are rarely robust constraints on the time-resolved dynamics in the white-light emitting flare layers. We are conducting a statistical study of the properties of Fe II lines, Mg II lines, and NUV continuum intensity in bright flare kernels observed by the *Interface Region Imaging Spectrograph* (IRIS), in order to provide comprehensive constraints for radiative-hydrodynamic flare models. Here we present a new technique for identifying bright flare kernels and preliminary relationships among IRIS spectral properties for a sample of X-class solar flares.