

Thermal evolution of solar flares during the first year of SDO as seen by the EVE instrument

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It is very evident during the first year of the Solar Dynamics Observatory (SDO) that the Sun awoke from its prolonged minimum and is well into solar cycle 24. There has been tens of moderate M-class flares and a large X-class event (as of abstract submission), with more surely to come as the solar cycle activity increases. With SDO's 24/7 observations, every single flare has been observed through their entire evolution, providing new insights in the thermal evolution of every flare. It is evident that this evolution is extremely different for many of the flares, even for flares with similar X-ray magnitude classifications. Presented and discussed will be these different flares with their varying thermal evolution profiles as observed by the Extreme ultraviolet Variability Experiment (EVE) onboard the Solar Dynamics Observatory (SDO).