Universidade Presbiteriana Mackenzie

Colóquios do CRAAM

Centro de Rádio Astronomia e Astrofísica Mackenzie

Stellar Flare Energy Ratios: NUV vs Optical

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Flares result from magnetic reconnection processes in the stellar magnetic field that provide temporary increases in the stellar radiative output. Here I present a multiwavelength study of short duration flares using data from the GALEX (NUV) and Kepler (optical) space telescopes. I will present the population of short duration NUV flares we discovered in the sample of stars observed simultaneously by these two missions, and chronicle our efforts to identify optical counterparts to the NUV flares. I will discuss the limits this allows us to place on the energy ratio between the NUV and optical wavebands, and present evidence that energy fractionation is not constant across all types of flares. This study challenges the common approximation of flares as 9-10 thousand degree blackbody emitters, and highlights the need for more physically grounded approximations for flare energy fractionation.

22 de março de 2024, às 14h

https://us06web.zoom.us/j/5263924715?pwd=aVluVnBWdXBZcm0xUEttU0g5VzlLQT09

Meeting ID: 526 392 4715 | Passcode: 2zgmh8