

## Red stars, green planets? Exploring habitability around active stars

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M dwarfs are the most common stars in our Galaxy and frequent hosts of exoplanets. Many of these stars are also highly active, producing powerful flares far more often than the Sun. The radiation released during these events can erode planetary atmospheres, but it may also provide the energy needed to trigger prebiotic chemistry. In this talk, I will review the current state of the field and show how stellar flares can be studied using space-based photometry. Then, I will discuss how correcting for observational biases challenges the traditional assumption that flares follow a simple scaling law. Finally, I will present the upcoming PLATO mission and its potential to significantly refine flare statistics.

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