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Type : **Poster**

Inferring supernova light curves in Rubin data

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The Vera C. Rubin observatory is the premier optical transient facility on sky today. Many transient sources are point sources embedded in a host galaxy. This necessitates the subtraction of that host's light before examining the brightness over time, light curve, of the transient. Standard practice is to stack images from before the transient to then subtract and reveal the changing light curve. While this is fast and fairly reliable, it is provably sub-optimal compared to fully forward modelling the scene and transient simultaneously. Here we present an AstroPhot model in JAX that does just this to extract reliable and physically realistic light curves. I will discuss the progress so far and tests to compare with difference imaging.

Did you give a contributed talk at CASCA 2026?

No

If you are selected for a poster, would you be interested in giving a short flash talk on your work?

Yes

What is your career level?

Postdoctoral

Which keyword describes the area of focus of this talk?

Transients

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