

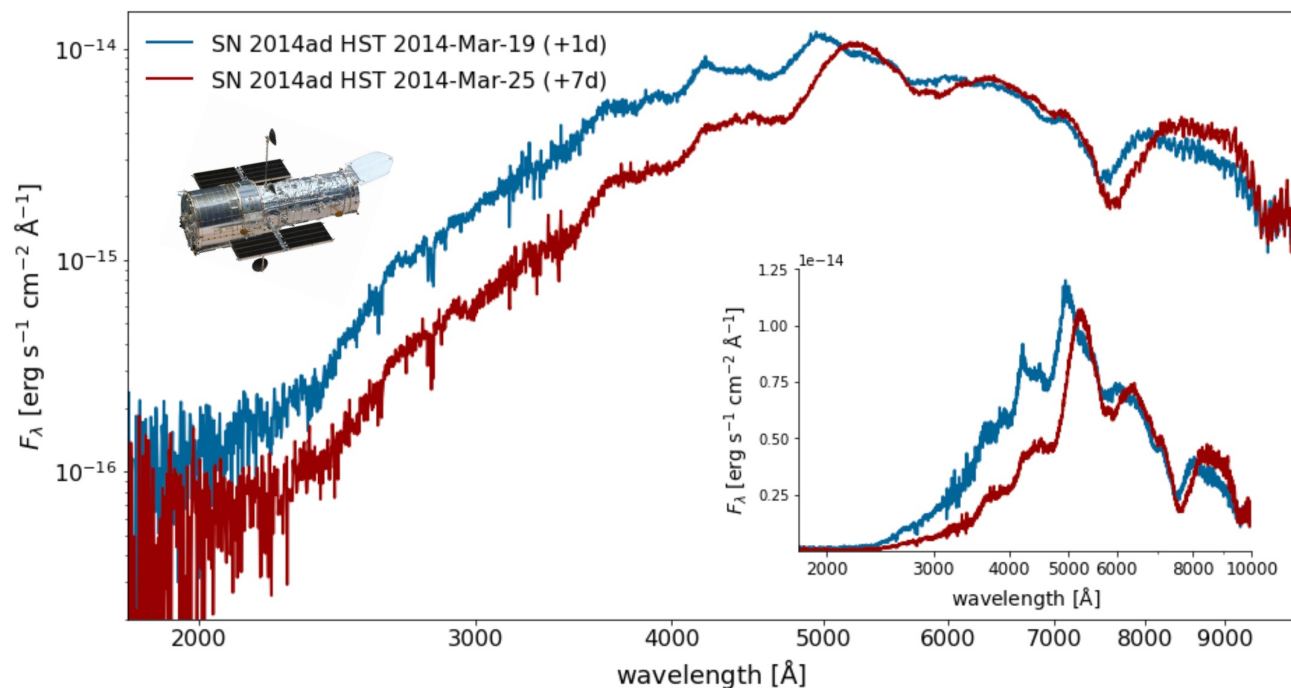


UV Spectra & TARDIS Models of Ic-bl SN 2014ad

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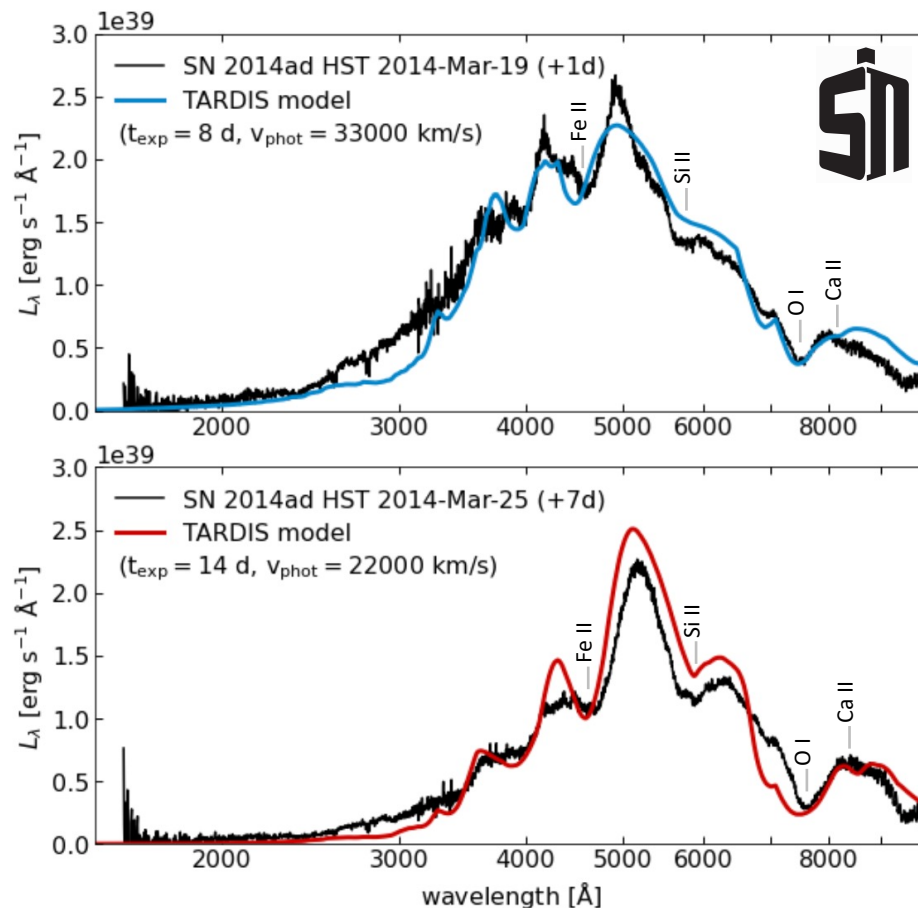
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Broad-line Ic SNe (Ic-bl) are stripped of H & He, exhibit extremely high velocities, and some are linked to GRBs. SN 2014ad is a Ic-bl with particularly high velocities but no accompanying GRB.

We present HST/STIS UV spectra of SN 2014ad. These are the first UV spectra for a SN Ic-bl. The lack of strong features in the UV suggests high opacity from Fe-group elements suppressing the UV flux.



We model the UV+optical spectra with TARDIS^{[1],[2]} (1D Monte-Carlo radiative transfer code) and estimate the ejecta mass could be as high as $\sim 20 M_{\odot}$ or more.

[1] Kerzendorf & Sim 2014, MNRAS, 440, 387; [2] Kerzendorf et al. 2021, Zenodo