

Transients in Middle Earth



Contribution ID: 15

Type: not specified

The Eye of Sauron in SN2025ngs: A Fast Evolving Interacting Supernova with a Disc-like Circumstellar Medium

Monday, 9 February 2026 11:00 (20 minutes)

Supernovae that interact with nearby circumstellar material shed by the progenitor shortly before the terminal explosion shed light on the late lives of massive stars. These objects are highly heterogeneous, with early observations shedding light on even more diversity. We present SN2025ngs, a nearby interacting supernova in NGC5961. SN2025ngs has a spectroscopic evolution almost mimicking SN1998S, with early and later interaction features. This suggests a re-emerging interaction region as the photosphere recedes. Photometrically, however, SN2025ngs is fainter, and also consistent with a short-plateau light curve. We explore the position of SN2025ngs in the landscape of interacting supernovae, and other short-plateau supernovae, and their hosts. We also present early spectroscopy, where, in high resolution data from a day post-discovery, we find evidence of a circumstellar disk around the progenitor, illustrating the complex environments of these diverse transients.

Author: RANSOME, Conor (Steward Observatory, University of Arizona)

Presenter: RANSOME, Conor (Steward Observatory, University of Arizona)

Session Classification: Supernovae