

How do positron-trapping and titanium decay change light curve models of SESNe?

Stripped-envelope (Type IIb and Ib/c) supernovae form a special group within core-collapse SNe because their progenitor lost a significant amount of the H and He layers during the pre-supernova evolution. And as far as we know, there are some discrepancies between the physical parameters derived from their early- and late-time light curve models. Moreover, most of these events show a peculiar slope in the late time that can not be explained only by the radioactive decay of Ni and Co. One possibility to solve this issue is the gamma-ray and positron trapping, which plays an important role in forming the shape of the late-time light curve of SESNe. Or it is also possible that this effect is due to titanium decay, which can be taken into account besides nickel and cobalt decay.

Length of presentation requested

Oral presentation: 8 min + 2 min questions (Poster-type talk)

Please select between one and three keywords related to your abstract

Stellar explosions and mergers - theory

2nd keyword (optional)

3rd keyword (optional)

Primary author: NAGY, Andrea

Presenter: NAGY, Andrea