

Freitag, 22. April 2022, 15 Uhr c.t. im Hörsaal I des Physikalischen Instituts



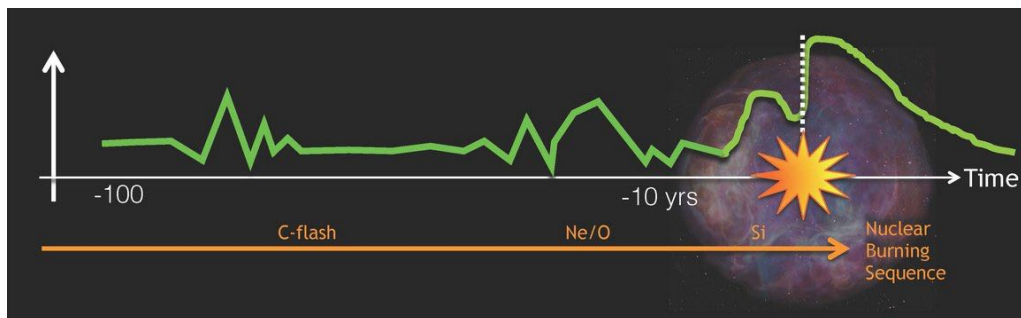
Luc Dessart

Institut d'Astrophysique de
Paris

„Interacting supernovae“

High-cadence long-term monitoring of the transient sky suggests that most core-collapse supernovae are influenced at some level by interaction with circumstellar material. Although considered so far a feature in core-collapse supernovae, this observation has led theorists to revise the idealized view of massive star evolution and explosion, introducing a slew of time-dependent, dynamical, and multi-dimensional effects that remain today poorly understood.

In this talk, I will review the basic features of massive star evolution, the ultimate gravitational collapse of their degenerate core, and their explosion as supernovae. I will then describe the variety of signatures that are suggestive of ejecta interaction with circumstellar material, how we model the radiation and the dynamics of these events, and how these new results reshape our understanding of massive star evolution and explosion.



© W. M. Keck Observatory/Adam Makarenko

Es gelten die Corona-Regelungen des Landes Nordrhein-Westfalen