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Type II Supernovae¹

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We give an overview of the hydrodynamics of core collapse supernova explosions according to the results of recent two and three-dimensional numerical simulations. Emphasis is placed on the various hydrodynamic instabilities that occur during both the early and advanced stages of the explosion, and the importance of these instabilities for the interpretation of supernova observations, like spectra, light curves, polarimetry, and inferred pulsar recoils. The Type II supernova SN 1987A in the Large Magellanic Cloud is used as a case study to illustrate these points.

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