Record Nr. UNINA9910300367703321 Autore Stevenson David S Titolo Extreme Explosions: Supernovae, Hypernovae, Magnetars, and Other Unusual Cosmic Blasts / / by David S. Stevenson New York, NY:,: Springer New York:,: Imprint: Springer,, 2014 Pubbl/distr/stampa **ISBN** 1-4614-8136-8 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (373 p.) Collana Astronomers' Universe, , 1614-659X Disciplina 523.84465 Soggetti Astronomy **Astrophysics** Nuclear physics Astronomy, Astrophysics and Cosmology Popular Science in Astronomy Particle and Nuclear Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes index. Note generali The Evolution of Massive Stars -- The Top of the Hertzsprung-Russell Nota di contenuto Diagram -- Collapsars, Hypernovae, and Long Gamma Ray Bursts --Quiet supernovae, and Death by Fall-Back -- Luminous Blue Variables and Supernova 'Imposters' -- Death by Magnetar -- Pulsational Pair Instability and Pair Instability Supernovae -- Luminous Blue Flashes --Population III Stars -- The Impact of Nuclear Reactions of Massive Stars on the Present Day Universe -- Red Novae and the Enigma of V838 Monocerotis. Sommario/riassunto What happens at the end of the life of massive stars? At one time we thought all these stars followed similar evolutionary paths. However, new discoveries have shown that things are not quite that simple. This book focuses on the extreme -the most intense, brilliant and peculiarof astronomical explosions. It features highly significant observational finds that push the frontiers of astronomy and astrophysics, particularly as before these objects were only predicted in theory. This book is for those who want the latest information and ideas about the most dramatic and unusual explosions detected by current supernova

searches. It examines and explains cataclysmic and unusual events in

stellar astrophysics and presents them in a non-mathematical but highly detailed way that non-professionals can understand and enjoy.