1.	Record Nr.	UNINA9910410004803321
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	Titolo	Studying Compact Star Equation of States with General Relativistic Initial Data Approach / / by Enping Zhou
	Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
	ISBN	981-15-4151-5
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XVIII, 78 p. 23 illus., 22 illus. in color.)
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
	Disciplina	530.11
	Soggetti	Cosmology Physics Gravitation Astrophysics Nuclear physics Heavy ions Numerical and Computational Physics, Simulation Classical and Quantum Gravitation, Relativity Theory Astrophysics and Astroparticles Nuclear Physics, Heavy Ions, Hadrons
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Backgrounds -- Tidal deformability of strange star -- Maximum mass of rotating strange star -- Triaxially rotating strange star -- Conclusion and Discussion.
	Sommario/riassunto	This book focuses on the equation of state (EoS) of compact stars, particularly the intriguing possibility of the "quark star model." The EoS of compact stars is the subject of ongoing debates among astrophysicists and particle physicists, due to the non-perturbative property of strong interaction at low energy scales. The book investigates the tidal deformability and maximum mass of rotating quark stars and triaxially rotating quark stars, and compares them with those of neutron stars to reveal significant differences. Lastly, by combining the latest observations of GW170817, the book suggests potential ways to distinguish between the neutron star and quark star