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Nota di contenuto	1. Stationary, axisymmetric equilibria -- 2. 3+1 split, action, Lagrangian and Hamiltonian formalisms -- 3. Asymptotics, virial identities and nonaxisymmetric equilibria -- 4. Numerical schemes -- 5. Equilibrium models -- 6. Approximation methods for equilibria -- 7. Perturbation theory of relativistic fluids -- 8. Quasinormal modes -- 9. Stellar stability -- 10. Nonlinear dynamics of rotating relativistic stars -- Appendix A: Lie derivatives, forms, densities, and integration -- Appendix B: The Newtonian limit of the two-potential.
Sommario/riassunto	The masses of neutron stars are limited by an instability to gravitational collapse and an instability driven by gravitational waves

limits their spin. Their oscillations are relevant to x-ray observations of accreting binaries and to gravitational wave observations of neutron stars formed during the coalescence of double neutron-star systems. This volume includes more than forty years of research to provide graduate students and researchers in astrophysics, gravitational physics and astronomy with the first self-contained treatment of the structure, stability and oscillations of rotating neutron stars. This monograph treats the equations of stellar equilibrium; key approximations, including slow rotation and perturbations of spherical and rotating stars; stability theory and its applications, from convective stability to the r-mode instability; and numerical methods for computing equilibrium configurations and the nonlinear evolution of their oscillations. The presentation of fundamental equations, results and applications is accessible to readers who do not need the detailed derivations.