1. Record Nr. UNINA9910132245303321 Autore Romero Gustavo E Titolo Introduction to Black Hole Astrophysics / / by Gustavo E. Romero, Gabriela S. Vila Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 2014 **ISBN** 3-642-39596-1 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (XVIII, 318 p. 96 illus., 47 illus. in color.) Collana Lecture Notes in Physics, , 0075-8450 ; ; 876 523.01 Disciplina Soggetti **Astrophysics** Gravitation Astrophysics and Astroparticles Classical and Quantum Gravitation, Relativity Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Space-time and Gravitation -- Black Holes -- Black Hole Physics --Nota di contenuto Accretion onto Black Holes -- Jets -- Evidence for Black Holes --Wormholes and Exotic Objects -- Black Holes and Cosmology --Topology and Manifolds -- Selected and Annotated Bibliography. Sommario/riassunto This book is based on the lecture notes of a one-semester course on black hole astrophysics given by the author and is aimed at advanced undergraduate and graduate students with an interest in astrophysics. The material included goes beyond that found in classic textbooks and presents details on astrophysical manifestations of black holes. In particular, jet physics and detailed accounts of objects like microquasars, active galactic nuclei, gamma-ray bursts, and ultraluminous X-ray sources are covered, as well as advanced topics like black holes in alternative theories of gravity. The author avoids unnecessary technicalities and to some degree the book is selfcontained. The reader will find some basic general relativity tools in Chapter 1. The appendices provide some additional mathematical details that will be useful for further study, and a guide to the

bibliography on the subject.