Record Nr. UNINA9910349503403321 Autore Di Matteo Tiziana **Titolo** Black Hole Formation and Growth: Saas-Fee Advanced Course 48. Swiss Society for Astrophysics and Astronomy / / by Tiziana Di Matteo, Andrew King, Neil J. Cornish; edited by Roland Walter, Philippe Jetzer, Lucio Mayer, Nicolas Produit Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 2019 **ISBN** 3-662-59799-3 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (xiii, 212 pages): illustrations Saas-Fee Advanced Course, , 1861-7980 ; ; 48 Collana Disciplina 523.8875 Soggetti **Astrophysics** Cosmology Astrophysics and Astroparticles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Black Hole Merging and Gravitational Waves -- Supermassive Black Hole Accretion and Feedback -- Black Holes across Cosmic History: a journey through 13.8 billion years. Sommario/riassunto The ultimate proofs that black holes exist have been obtained very recently thanks to the detection of gravitational waves from their coalescence and due to material orbiting at a distance of some gravitational radii imaged by optical interferometry or X-ray reverberation mapping. This book provides three comprehensive and up-to-date reviews covering the gravitational wave breakthrough, our understanding of accretion and feedback in supermassive black holes and the relevance of black holes for the Universe since the Big Bang. Neil J. Cornish presents gravitational wave emission from black hole mergers and the physics of detection. Andrew King reviews the physics of accretion on to supermassive black holes and their feedback on host galaxies. Tiziana Di Matteo addresses our understanding of black hole formation at cosmic dawn, the emergence of the first quasars, black hole merging and structure formation. The topics covered by the 48th

holes in modern astrophysics.

Saas-Fee Course provide a broad overview of the importance of black