Record Nr. UNINA9910300551403321 Out-of-Equilibrium Physics of Correlated Electron Systems / / edited by Titolo Roberta Citro, Ferdinando Mancini Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-94956-X Edizione [1st ed. 2018.] 1 online resource (XI, 190 p. 50 illus., 47 illus. in color.) Descrizione fisica Collana Springer Series in Solid-State Sciences, , 0171-1873; ; 191 Disciplina 530.41 Soggetti Superconductivity Superconductors Quantum physics Phase transformations (Statistical physics) Condensed materials Optical materials Electronic materials Strongly Correlated Systems, Superconductivity Quantum Physics Quantum Gases and Condensates Optical and Electronic Materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Master equation versus Keldysh Green's functions for correlated Nota di contenuto quantum systems out of equilibrium -- Towards an understanding of superconductors and correlated materials out-of-equilibrium: meanfield approaches -- Electronic structure of correlated materials out of equilibrium: non-equilibrium dynamical mean-field theory -- Ultrafast optical control of complex quantum materials. Sommario/riassunto This book is a wide-ranging survey of the physics of out-ofequilibrium systems of correlated electrons, ranging from the theoretical, to the numerical, computational and experimental aspects. It starts from basic approaches to non-equilibrium physics, such as the mean-field approach, then proceeds to more advanced methods, such

as dynamical mean-field theory and master equation approaches. Lastly, it offers a comprehensive overview of the latest advances in experimental investigations of complex quantum materials by means of ultrafast spectroscopy.