Record Nr. UNINA9910453378703321 Autore Kanovei V. G (Vladimir Grigorevich) Titolo Canonical Ramsey theory on Polish spaces / / Vladimir Kanovei, Marcin Sabok, Jindrich Zapletal [[electronic resource]] Cambridge:,: Cambridge University Press,, 2013 Pubbl/distr/stampa 1-107-42423-2 **ISBN** 1-139-89113-8 1-107-42195-0 1-107-41924-7 1-107-41660-4 1-139-20866-7 1-107-42047-4 1-107-41792-9 Descrizione fisica 1 online resource (viii, 269 pages) : digital, PDF file(s) Collana Cambridge tracts in mathematics;; 202 Disciplina 511.322 Soggetti Set theory Ramsey theory Polish spaces (Mathematics) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Introduction -- Background facts -- Analytic equivalence relations and models of set theory -- Classes of equivalence relations -- Games and the Silver property -- The game ideals -- Benchmark equivalence relations -- Ramsey-type ideals -- Product-type ideals -- The countable support iteration ideals. Sommario/riassunto This book lays the foundations for an exciting new area of research in descriptive set theory. It develops a robust connection between two active topics: forcing and analytic equivalence relations. This in turn allows the authors to develop a generalization of classical Ramsey theory. Given an analytic equivalence relation on a Polish space, can one find a large subset of the space on which it has a simple form? The book provides many positive and negative general answers to this question. The proofs feature proper forcing and Gandy-Harrington

forcing, as well as partition arguments. The results include strong canonization theorems for many classes of equivalence relations and sigma-ideals, as well as ergodicity results in cases where canonization theorems are impossible to achieve. Ideal for graduate students and researchers in set theory, the book provides a useful springboard for further research.