Record Nr. UNINA9910457513203321 Autore Aschbacher Michael <1944-> **Titolo** Fusion systems in algebra and topology / / Michael Aschbacher, Radha Kessar, Bob Oliver [[electronic resource]] Cambridge: ,: Cambridge University Press, , 2011 Pubbl/distr/stampa 1-107-23223-6 **ISBN** 1-139-10184-6 1-139-10364-4 1-299-40566-5 1-139-10118-8 1-139-09916-7 1-139-00384-4 Descrizione fisica 1 online resource (vi, 320 pages) : digital, PDF file(s) Collana London Mathematical Society lecture note series;; 391 512/.2 Disciplina Soggetti Combinatorial group theory Topological groups Algebraic topology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Introduction to fusion systems -- The local theory of fusion systems --Fusion and homotopy theory -- Fusion and representation theory --Appendix A. Background facts about groups. Sommario/riassunto A fusion system over a p-group S is a category whose objects form the set of all subgroups of S, whose morphisms are certain injective group homomorphisms, and which satisfies axioms first formulated by Puig that are modelled on conjugacy relations in finite groups. The definition was originally motivated by representation theory, but fusion systems also have applications to local group theory and to homotopy theory. The connection with homotopy theory arises through classifying spaces which can be associated to fusion systems and which have many of the nice properties of p-completed classifying spaces of finite groups. Beginning with a detailed exposition of the foundational material, the authors then proceed to discuss the role of fusion systems

in local finite group theory, homotopy theory and modular representation theory. This book serves as a basic reference and as an introduction to the field, particularly for students and other young mathematicians.