Record Nr. UNINA9910510575803321 Autore Haran Dan Titolo The Absolute Galois Group of a Semi-Local Field / / by Dan Haran, Moshe Jarden Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2021 **ISBN** 3-030-89191-7 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (147 pages) Collana Springer Monographs in Mathematics, , 2196-9922 512.32 Disciplina Soggetti Algebra Geometry, Algebraic Algebraic fields **Polynomials** Algebraic Geometry Field Theory and Polynomials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto - Introduction -- 1. Topologies -- 2. Families of Subgroups -- 3. Free Products of Finitely Many Profinite Groups -- 4. Generalized Free Products.-5. Relative Embedding Problems -- 6. Strong Proper Projectivity -- 7. Étale Profinite Subset of Subgr(G) -- 8. Fundamental Result -- 9. Main Result. Bibliography -- Index. Sommario/riassunto This book is devoted to the structure of the absolute Galois groups of certain algebraic extensions of the field of rational numbers. Its main result, a theorem proved by the authors and Florian Pop in 2012, describes the absolute Galois group of distinguished semi-local algebraic (and other) extensions of the rational numbers as free products of the free profinite group on countably many generators and local Galois groups. This is an instance of a positive answer to the generalized inverse problem of Galois theory. Adopting both an arithmetic and probabilistic approach, the book carefully sets out the preliminary material needed to prove the main theorem and its supporting results. In addition, it includes a description of Melnikov's

construction of free products of profinite groups and, for the first time

in book form, an account of a generalization of the theory of free products of profinite groups and their subgroups. The book will be of interest to researchers in fieldarithmetic, Galois theory and profinite groups.