Record Nr. UNINA9910338255403321 Autore **Barot Michael** Titolo Quadratic Forms: Combinatorics and Numerical Results / / by Michael Barot, Jesús Arturo Jiménez González, José-Antonio de la Peña Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-05627-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XX, 220 p. 111 illus.) Collana Algebra and Applications, , 1572-5553;; 25 Disciplina 512.5 Soggetti Algebras, Linear Graph theory Combinatorics Algebra Field theory (Physics) Linear Algebra **Graph Theory** Field Theory and Polynomials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1 Fundamental Concepts -- 2 Positive Quadratic Forms -- 3 Nota di contenuto Nonnegative Quadratic Forms -- 4 Concealedness and Weyl Groups --5 Weakly Positive Quadratic Forms -- 6 Weakly Nonnegative Quadratic Forms -- References -- Index. Sommario/riassunto This monograph presents combinatorial and numerical issues on integral quadratic forms as originally obtained in the context of representation theory of algebras and derived categories. Some of these beautiful results remain practically unknown to students and scholars, and are scattered in papers written between 1970 and the present day. Besides the many classical results, the book also encompasses a few new results and generalizations. The material presented will appeal to a wide group of researchers (in representation theory of algebras, Lie theory, number theory and graph theory) and, due to its accessible nature and the many exercises provided, also to

undergraduate and graduate students with a solid foundation in linear

algebra and some familiarity on graph theory.