Record Nr. UNINA9910959854403321 Autore Mühlherr Bernhard Titolo Tits Polygons Pubbl/distr/stampa Providence:,: American Mathematical Society,, 2022 ©2022 **ISBN** 9781470470180 1470470187 Edizione [1st ed.] Descrizione fisica 1 online resource (132 pages) Memoirs of the American Mathematical Society: v.275 Collana Classificazione 17C4020E4251E1251E24 WeissRichard M Altri autori (Persone) 512/.2 Disciplina Soggetti Moufang loops Jordan algebras Buildings (Group theory) Graph theory **Polygons** Nonassociative rings and algebras -- Jordan algebras (algebras, triples and pairs) -- Exceptional Jordan structures Group theory and generalizations -- Structure and classification of infinite or finite groups -- Groups with a \$BN\$-pair; buildings Geometry -- Finite geometry and special incidence structures --Generalized quadrangles, generalized polygons Geometry -- Finite geometry and special incidence structures --Buildings and the geometry of diagrams Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "January 2022, volume 275, number 1352 (sixth of 6 numbers)." Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Tits polygons -- Tits hexagons -- Groups of relative rank 1 --Appendix / by Holger P. Petersson. "We introduce the notion of a Tits polygon, a generalization of the Sommario/riassunto notion of a Moufang polygon, and show that Tits polygons arise in a natural way from certain configurations of parabolic subgroups in an arbitrary spherical buildings satisfying the Moufang condition. We establish numerous basic properties of Tits polygons and characterize a large class of Tits hexagons in terms of Jordan algebras. We apply this classification to give a "rank 2" presentation for the group of F-

rational points of an arbitrary exceptional simple group of F-rank at

least 4 and to determine defining relations for the group of F-rational points of an an arbitrary group of Frank 1 and absolute type D4, E6, E7 or E8 associated to the unique vertex of the Dynkin diagram that is not orthogonal to the highest root. All of these results are over a field of arbitrary characteristic"--