1. Record Nr.   UNINA9910461572703321

   Autore   Muhlherr Bernhard Matthias

   Titolo   Descent in buildings / / Bernhard Muhlherr, Holger P. Petersson, and Richard M. Weiss

   Pubbl/distr/stampa   Princeton : , : Princeton University Press, , 2015

   ISBN   1-4008-7401-7

   Descrizione fisica   1 online resource (353 pages) : illustrations

   Collana   Annals of mathematics studies ; ; 190

   Disciplina   516/.13

   Soggetti   Buildings (Group theory)
                                  Combinatorial geometry
                                  Electronic books.

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto   Frontmatter -- Contents -- Preface -- PART 1. Moufang Quadrangles -- Chapter 1. Buildings -- Chapter 2. Quadratic Forms -- Chapter 3. Moufang Polygons -- Chapter 4. Moufang Quadrangles -- Chapter 5. Linked Tori, I -- Chapter 6. Linked Tori, II -- Chapter 7. Quadratic Forms over a Local Field -- Chapter 8. Quadratic Forms of Type E6, E7 and E8 -- Chapter 9. Quadratic Forms of Type F4 -- PART 2. Residues in Bruhat-Tits Buildings -- Chapter 10. Residues -- Chapter 11. Unramified Quadrangles of Type E6, E7 and E8 -- Chapter 12. Semi-ramified Quadrangles of Type E6, E7 and E8 -- Chapter 13. Ramified Quadrangles of Type E6, E7 and E8 -- Chapter 14. Quadrangles of Type E6, E7 and E8: Summary -- Chapter 15. Totally Wild Quadratic Forms of Type E7 -- Chapter 16. Existence -- Chapter 17. Quadrangles of Type F4 -- Chapter 18. The Other Bruhat-Tits Buildings -- PART 3. Descent -- Chapter 19. Coxeter Groups -- Chapter 20. Tits Indices -- Chapter 21. Parallel Residues -- Chapter 22. Fixed Point Buildings -- Chapter 23. Subbuildings -- Chapter 24. Moufang Structures -- Chapter 25. Fixed Apartments -- Chapter 26. The Standard Metric -- Chapter 27. Affine Fixed Point Buildings -- PART 4. Galois Involutions -- Chapter 28. Pseudo-Split Buildings -- Chapter 29. Linear Automorphisms -- Chapter 30. Strictly Semi-linear Automorphisms -- Chapter 31. Galois Involutions -- Chapter 32. Unramified Galois Involutions -- PART 5. Exceptional Tits Indices -- Chapter 33. Residually Pseudo-Split

Sommario/riassunto	Descent in Buildings begins with the resolution of a major open question about the local structure of Bruhat-Tits buildings. The authors then put their algebraic solution into a geometric context by developing a general fixed point theory for groups acting on buildings of arbitrary type, giving necessary and sufficient conditions for the residues fixed by a group to form a kind of subbuilding or "form" of the original building. At the center of this theory is the notion of a Tits index, a combinatorial version of the notion of an index in the relative theory of algebraic groups. These results are combined at the end to show that every exceptional Bruhat-Tits building arises as a form of a "residually pseudo-split" Bruhat-Tits building. The book concludes with a display of the Tits indices associated with each of these exceptional forms.This is the third and final volume of a trilogy that began with Richard Weiss' The Structure of Spherical Buildings and The Structure of Affine Buildings.