
Contents

Preface	xi
PART 1. MOUFANG QUADRANGLES	1
Chapter 1. Buildings	3
Chapter 2. Quadratic Forms	13
Chapter 3. Moufang Polygons	23
Chapter 4. Moufang Quadrangles	31
Chapter 5. Linked Tori, I	41
Chapter 6. Linked Tori, II	47
Chapter 7. Quadratic Forms over a Local Field	57
Chapter 8. Quadratic Forms of Type E_6 , E_7 and E_8	69
Chapter 9. Quadratic Forms of Type F_4	79
PART 2. RESIDUES IN BRUHAT-TITS BUILDINGS	83
Chapter 10. Residues	85
Chapter 11. Unramified Quadrangles of Type E_6 , E_7 and E_8	91
Chapter 12. Semi-ramified Quadrangles of Type E_6 , E_7 and E_8	93
Chapter 13. Ramified Quadrangles of Type E_6 , E_7 and E_8	101
Chapter 14. Quadrangles of Type E_6 , E_7 and E_8 : Summary	109
Chapter 15. Totally Wild Quadratic Forms of Type E_7	115

Chapter 16. Existence	119
Chapter 17. Quadrangles of Type F_4	129
Chapter 18. The Other Bruhat-Tits Buildings	137
PART 3. DESCENT	141
Chapter 19. Coxeter Groups	143
Chapter 20. Tits Indices	153
Chapter 21. Parallel Residues	165
Chapter 22. Fixed Point Buildings	181
Chapter 23. Subbuildings	195
Chapter 24. Moufang Structures	205
Chapter 25. Fixed Apartments	217
Chapter 26. The Standard Metric	221
Chapter 27. Affine Fixed Point Buildings	233
PART 4. GALOIS INVOLUTIONS	241
Chapter 28. Pseudo-Split Buildings	243
Chapter 29. Linear Automorphisms	251
Chapter 30. Strictly Semi-linear Automorphisms	259
Chapter 31. Galois Involutions	271
Chapter 32. Unramified Galois Involutions	275
PART 5. EXCEPTIONAL TITS INDICES	285
Chapter 33. Residually Pseudo-Split Buildings	287
Chapter 34. Forms of Residually Pseudo-Split Buildings	297

CONTENTS	ix
Chapter 35. Orthogonal Buildings	303
Chapter 36. Indices for the Exceptional Bruhat-Tits Buildings	309
Bibliography	327
Index	333