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   Nota di contenuto   Frontmatter -- Contents -- Preface -- Chapter One. Basic Definitions
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                       Quadrangular Algebras -- Chapter Seven. Defective Quadrangular
                       Algebras -- Chapter Eight. Isotopes -- Chapter Nine. Improper
                       Quadrangular Algebras -- Chapter Ten. Existence -- Chapter Eleven.
                       Moufang Quadrangles -- Chapter Twelve. The Structure Group --
                       Bibliography -- Index

   Sommario/riassunto This book introduces a new class of non-associative algebras related to
                       certain exceptional algebraic groups and their associated buildings.
                       Richard Weiss develops a theory of these "quadrangular algebras" that
                       opens the first purely algebraic approach to the exceptional Moufang
                       quadrangles. These quadrangles include both those that arise as the
                       spherical buildings associated to groups of type E6, E7, and E8 as well
                       as the exotic quadrangles "of type F4" discovered earlier by Weiss.
                       Based on their relationship to exceptional algebraic groups,
                       quadrangular algebras belong in a series together with alternative and

Jordan division algebras. Formally, the notion of a quadrangular algebra is derived from the notion of a pseudo-quadratic space (introduced by Jacques Tits in the study of classical groups) over a quaternion division ring. This book contains the complete classification of quadrangular algebras starting from first principles. It also shows how this classification can be made to yield the classification of exceptional Moufang quadrangles as a consequence. The book closes with a chapter on isotopes and the structure group of a quadrangular algebra. Quadrangular Algebras is intended for graduate students of mathematics as well as specialists in buildings, exceptional algebraic groups, and related algebraic structures including Jordan algebras and the algebraic theory of quadratic forms.