1. Record Nr. UNINA9911019821103321

| | |
|---|---|
| Autore | Artin Emil <1898-1962.> |
| Titolo | Geometric algebra / / E. Artin |
| Pubbl/distr/stampa | New York, : Interscience Publishers, 1988, c1957 |
| ISBN | 9786613332509<br>9781283332507<br>1283332507<br>9781118164518<br>1118164512<br>9781118164549<br>1118164547 |
| Edizione | [Wiley classics library ed.] |
| Descrizione fisica | 1 online resource (226 p.) |
| Collana | Wiley classics library |
| Disciplina | 512.5 |
| Soggetti | Algebras, Linear<br>Geometry, Projective |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Geometric Algebra; Preface; Suggestions for the Use of This Book; CONTENTS; CHAPTER I Preliminary Notions; 1. Notions of set theory; 2. Theorems on vector spaces; 3. More detailed structure of homomorphisms; 4. Duality and pairing; 5. Linear equations; 6. Suggestions for an exercise; 7. Notions of group theory; 8. Notions of field theory; 9. Ordered fields; 10. Valuations; CHAPTER II Affine and Projective Geometry; 1. Introduction and the first three axioms; 2. Dilatations and translations; 3. Construction of the field; 4. Introduction of coordinates; 5. Affine geometry based on a given field<br>6. Desargues' theorem7. Pappus' theorem and the commutative law; 8. Ordered geometry; 9. Harmonic points; 10. The fundamental theorem of projective geometry; 11. The projective plane; CHAPTER III Symplectic and Orthogonal Geometry; 1. Metric structures on vector spaces; 2. Definitions of symplectic and orthogonal geometry; 3. Common features of orthogonal and symplectic geometry; 4. Special features of orthogonal geometry; 5. Special features of symplectic geometry; 6. Geometry over finite fields; 7. Geometry over ordered |

| | |
|---|---|
| | fields-Sylvester's theorem; CHAPTER IV The General Linear Group 1. Non-commutative determinants2. The structure of GLn(); 3. Vector spaces over finite fields; CHAPTER V The Structure of Symplectic and Orthogonal Groups; 1. Structure of the symplectic group; 2. The orthogonal group of euclidean space; 3. Elliptic spaces; 4. The Clifford algebra; 5. The spinorial norm; 6. The cases dim V < 4; 7. The structure of the group (V); Bibliography; Index |
| Sommario/riassunto | This classic text, written by one of the foremost mathematicians of the 20th century, is now available in a low-priced paperback edition. Exposition is centered on the foundations of affine geometry, the geometry of quadratic forms, and the structure of the general linear group. Context is broadened by the inclusion of projective and symplectic geometry and the structure of symplectic and orthogonal groups. |