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| Autore | Gbur Greg |
| Titolo | Singular optics / / Gregory J. Gbur |
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| ISBN | 1-315-35668-6<br>1-315-37426-9<br>1-4665-8078-X |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (564 pages) : illustrations (some color), photographs |
| Collana | Series in optics and optoelectronics |
| Disciplina | 535 |
| Soggetti | Singularities (Mathematics) |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | "A Taylor & Francis Book"--cover. |
| Nota di bibliografia | Includes bibliographical references (pages [505]-532) and index. |
| Nota di contenuto | Chapter 1. Introduction : vortices in nature -- Chapter 2. Anatomy of a vortex beam -- Chapter 3. Generic properties of phase singluarities -- Chapter 4. Generation and detection of optical vortices -- Chapter 5. Angular momentum of light -- Chapter 6. Applications of optical vortices -- Chapter 7. Polarization singularities -- Chapter 8. Singularities of the poynting vector -- Chapter 9. Coherence singularities -- Chapter 10. Singularities and vortices in quantum optics -- Chapter 11. Vortices in random wavefields -- Chapter 12. Unusual singularities and topological tricks. |
| Sommario/riassunto | This book highlights how an understanding of singular optics provides a completely different way to look at light. Whereas traditional optics focuses on the shape and structure of the non-zero portions of the wavefield, singular optics describes a wave's properties from its null regions. The contents cover the three main areas of the field: the study of generic features of wavefields, determination of unusual properties of vortices and wavefields that contain singularities, and practical applications of vortices and other singularities. |