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Descrizione fisica	1 online resource (505 p.)
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Soggetti	Fracture mechanics Materials - Fatigue Electronic books.
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Modeling the mechanical fields at the crack tip -- Review of the continuum mechanics and the behavior laws -- Overview of fracture mechanics -- Fracture mechanics -- Crack propagation -- Prediction of the fracture by cracking of elements of metallic structures subjected to fatigue -- Possibilities offered by the laws of crack propagation in the study of fatigue life.
Sommario/riassunto	This book presents recent advances related to the following two topics: - how mechanical fields close to material or geometrical singularities such as cracks can be determined;- how failure criteria can be established according to the singularity degrees related to these discontinuities.Concerning the determination of mechanical fields close to a crack tip, the first part of the book presents most of the traditional methods in order to classify them into two major categories. The first is based on the stress field, such as the Airy function, and the second resolves the prob