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intensity factor; 2.4.2 Examples of stress intensity factors for LEFM; 2.4.3 Griffith theories of strength and energy
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3.7.2 XFEM discretization

Sommario/riassunto

This important textbook provides an introduction to the concepts of the newly developed extended finite element method (XFEM) for fracture analysis of structures, as well as for other related engineering applications.One of the main advantages of the method is that it avoids any need for remeshing or geometric crack modelling in numerical simulation, while generating discontinuous fields along a crack and around its tip. The second major advantage of the method is that by a small increase in number of degrees of freedom, far more accurate solutions can be obtained. The method has recen