

Convergence properties of the ERR in the FEM solution to the fiber/matrix interface crack problem evaluated with the VCCT

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Abstract

Priority: 3

Target journal(s): Engineering Fracture Mechanics, Theoretical and Applied Fracture Mechanics, International Journal of Fracture

1. Introduction

2. Vectorial formulation of the Virtual Crack Closure Technique (VCCT)

3. Formulaton of the ERR with respect to the FEM solution's variables

5 4. Convergence analysis

4.1. Analytical considerations

4.2. Numerical results

5. Conclusions & Outlook