

Variational Approach To Fracture

[DOWNLOAD HERE](#)

1 Introduction; - 2 Going variational; 2.1 Griffith's theory; 2.2 The 1-homogeneous case A variational equivalence; 2.3 Smoothness The soft belly of Griffith's formulation; 2.4 The non 1-homogeneous case A discrete variational evolution; 2.5 Functional framework A weak variational evolution; 2.6 Cohesiveness and the variational evolution; - 3 Stationarity versus local or global minimality A comparison; 3.1 1d traction; 3.1.1 The Griffith case Soft device; 3.1.2 The Griffith case Hard device; 3.1.3 Cohesive case Soft device; 3.1.4 Cohesive case Hard device; 3.2 A tearing experiment; - 4 Initiation; 4.1 Initiation The Griffith case; 4.1.1 Initiation The Griffith case Global minimality; 4.1.2 Initiation The Griffith case Local minimality; 4.2 Initiation The cohesive case; 4.2.1 Initiation The cohesive 1d case Stationarity; 4.2.2 Initiation The cohesive 3d case Stationarity; 4.2.3 Initiation The cohesive case Global minimality; - 5 Irreversibility; 5.1 Irreversibility The Griffith case Well-posedness of the variational evolution; 5.1.1 Irreversibility The Griffith case Discrete evolution; 5.1.2 Irreversibility The Griffith case Global minimality in the limit; 5.1.3 Irreversibility The Griffith case Energy balance in the limit; 5.1.4 Irreversibility The Griffith case The time-continuous evolution; 5.2 Irreversibility The cohesive case; - 6 Path; - 7 Griffith vs. Barenblatt; - 8 Numerics and Griffith; 8.1 Numerical approximation of the energy; 8.1.1 The first time step; 8.1.2 Quasi-static evolution; 8.2 Minimization algorithm; 8.2.1 The alternate minimization algorithm; 8.2.2 The backtracking algorithm; 8.3 Numerical experiments; 8.3.1 The 1D traction (hard device); 8.3.2 The Tearing experiment; 8.3.3 Revisiting the 2D traction experiment on a fiber reinforced matrix; - 9 Fatigue; 9.1 Peeling Evolution; 9.2 The limit fatigue law when d tends to 0; 9.3 A variational formulation for fatigue; 9.3.1 Peeling revisited; 9.3.2 Generalization; - Appendix; Glossary; References. EAN/ISBN : 9781402063954 Publisher(s): Springer Netherlands Format: ePub/PDF Author(s): Bourdin, Blaise - Francfort, Gilles A. - Marigo, Jean-Jacques

[DOWNLOAD HERE](#)

Similar manuals:

[Variational Approach To Fracture](#)