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Nota di contenuto	2.2. Green's function in two-dimensional conditions 2.3. Green's function in three-dimensional conditions; 2.4. Eshelby's problems in linear microelasticity; 2.5. Hill tensor for the elliptic inclusion; 2.6. Hill's tensor for the spheroidal inclusion; 2.7. Appendix; 2.8. Appendix: derivation of the ij; 3 Two-dimensional Griffith Crack; 3.1. Stress singularity at crack tip; 3.2. Solution to mode I problem; 3.3. Solution to mode II problem; 3.4. Appendix: Abel's integral equation; 3.5. Appendix: Neuber-Papkovitch displacement potentials; 4 The Elliptic Crack Model in Plane Strains 4.1. The infinite plane with elliptic hole 4.2. Infinite plane with elliptic hole: the anisotropic case; 4.3. Eshelby approach; 5 Griffith Crack in 3D; 5.1. Griffith circular (penny-shaped) crack in mode I; 5.2. Griffith circular (penny-shaped) crack under shear loading; 6 Ellipsoidal Crack Model: the Eshelby Approach; 6.1. Mode I; 6.2. Mode II; 7 Energy Release Rate and Conditions for Crack Propagation; 7.1. Driving force of crack propagation; 7.2. Stress intensity factor and energy release rate; PART 2: Homogenization of Microcracked Materials; 8 Fundamentals of Continuum Micromechanics 8.1. Scale separation 8.2. Inhomogeneity model for cracks; 8.3. General results on homogenization with Griffith cracks; 9 Homogenization of Materials Containing Griffith Cracks; 9.1. Dilute estimates in isotropic

conditions; 9.2. A refined strain-based scheme; 9.3. Homogenization in plane strain conditions for anisotropic materials; 10 Eshelby-based Estimates of Strain Concentration and Stiffness; 10.1. Dilute estimate of the strain concentration tensor: general features; 10.2. The particular case of opened cracks; 10.3. Dilute estimates of the effective stiffness for opened cracks
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10.5. Mori-Tanaka estimate of the effective stiffness; 11 Stress-based Estimates of Stress Concentration and Compliance; 11.1. Dilute estimate of the stress concentration tensor; 11.2. Dilute estimates of the effective compliance for opened cracks; 11.3. Dilute estimate of the effective compliance for closed cracks; 11.4. Mori-Tanaka estimates of effective compliance; 11.5. Appendix: algebra for transverse isotropy and applications; 12 Bounds; 12.1. The energy definition of the homogenized stiffness
12.2. Hashin-Shtrikman's bound
