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Autore	Movchan A. B (Alexander B.)
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Altri autori (Persone)	MovchanN. V (Nataliya V.) PoultonC. G (Chris G.)
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Sommario/riassunto

This monograph provides a systematic study of asymptotic models of continuum mechanics for composite structures, which are either dilute (for example, two-phase composite structures with small inclusions) or densely packed (in this case inclusions may be close to touching). It is based on the results of recent research and includes a comprehensive analysis of dipole and multipole fields associated with defects in solids. The text covers static problems of elasticity in dilute composites as well as spectral problems. Applications of the mathematical models included in the book are in damage me