

Mechanics and Analysis of Composite Materials

1st Edition

Authors: Valery Vasiliev Evgeny Morozov Valery Vasiliev Evgeny Morozov

Description

This book is concerned with the topical problems of mechanics of advanced composite materials whose mechanical properties are controlled by high-strength and high-stiffness continuous fibers embedded in polymeric, metal, or ceramic matrix. Although the idea of combining two or more components to produce materials with controlled properties has been known and used from time immemorial, modern composites were only developed several decades ago and have now found intensive application in different fields of engineering, particularly in aerospace structures for which high strength-to-weight and stiffness-to-weight ratios are required.