1. | | |
   |---|---|
   | Record Nr. | UNISA990005406670203316 |
   | Autore | KENDAL, Maurice : Sir |
   | Titolo | Vol. 2 Inference and relationship / Sir Maurice Kendall and Alan Stuart |
   | Pubbl/distr/stampa | 4th ed |
   | Descrizione fisica | London : Charles Griffin & Company Limited, 1979. 747p. ; 25 cm. |
   | Altri autori (Persone) | STUART, Alan |
   | Disciplina | 519.5 |
   | Soggetti | Statistica matematica |
   | Collocazione | 500 519.5 KEN |
   | Lingua di pubblicazione | Inglese |
   | Formato | Materiale a stampa |
   | Livello bibliografico | Monografia |

2. | | |
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   | Record Nr. | UNINA9910437900903321 |
   | Autore | Novotny Antonio Andre |
   | Titolo | Topological derivatives in shape optimization / / Antonio Andre Novotny and Jan Sokoowski |
   | Pubbl/distr/stampa | New York, : Springer, 2013 |
   | ISBN | 1-283-93548-1 |
   | | 3-642-35245-6 |
   | Edizione | [1st ed. 2013.] |
   | Descrizione fisica | 1 online resource (422 p.) |
   | Collana | Interaction of mechanics and mathematics, , 1860-6245 |
   | Altri autori (Persone) | SokoowskiJan |
   | Disciplina | 005.4/3 |
   | Soggetti | Shape theory (Topology) |
   | Lingua di pubblicazione | Inglese |
   | Formato | Materiale a stampa |
   | Livello bibliografico | Monografia |
   | Note generali | Description based upon print version of record. |
   | Nota di bibliografia | Includes bibliographical references and index. |
   | Nota di contenuto | Domain Derivation in Continuum Mechanics -- Material and Shape Derivatives for Boundary Value Problems -- Singular Perturbations of Energy Functionals -- Configurational Perturbations of Energy |

Functionals -- Topological Derivative Evaluation with Adjoint States -- Topological Derivative for Steady-State Orthotropic Heat Diffusion Problems -- Topological Derivative for Three-Dimensional Linear Elasticity Problems -- Compound Asymptotic Expansions for Spectral Problems -- Topological Asymptotic Analysis for Semilinear Elliptic Boundary Value Problems -- Topological Derivatives for Unilateral Problems.

Sommario/riassunto	The topological derivative is defined as the first term (correction) of the asymptotic expansion of a given shape functional with respect to a small parameter that measures the size of singular domain perturbations, such as holes, inclusions, defects, source-terms and cracks. Over the last decade, topological asymptotic analysis has become a broad, rich and fascinating research area from both theoretical and numerical standpoints. It has applications in many different fields such as shape and topology optimization, inverse problems, imaging processing and mechanical modeling including synthesis and/or optimal design of microstructures, sensitivity analysis in fracture mechanics and damage evolution modeling. Since there is no monograph on the subject at present, the authors provide here the first account of the theory which combines classical sensitivity analysis in shape optimization with asymptotic analysis by means of compound asymptotic expansions for elliptic boundary value problems. This book is intended for researchers and graduate students in applied mathematics and computational mechanics interested in any aspect of topological asymptotic analysis. In particular, it can be adopted as a textbook in advanced courses on the subject and shall be useful for readers interested in the mathematical aspects of topological asymptotic analysis as well as in applications of topological derivatives in computational mechanics.