Fourier BEM [Generalization of Boundary Element Methods by Fourier Transform /

Duddeck, Fabian M.E.
aut.
http://id.loc.gov/vocabulary/relators/aut

Springer Berlin Heidelberg,
2002

Global analysis (Mathematics) | Fourier analysis | Mechanics, applied | Engineering | Numerical analysis | Computer simulation | Analysis | Fourier Analysis | Theoretical and Applied Mechanics | Computational Intelligence | Numerical Analysis | Simulation and Modeling

Monografía

Like FEM, the boundary element method (BEM) provides a general numerical tool for the solution of complex engineering problems. In the last decades, the range of its applications has remarkably been enlarged. Therefore dynamic and nonlinear problems can be tackled. Nevertheless, they still demand an explicit expression of a fundamental solution, which is only known in simple cases. Therefore, the present book proposes an alternative BEM-formulation based on the Fourier transform, which can be applied to almost all cases relevant in engineering mechanics. The basic principle is presented for the heat equation. Applications are taken from solid mechanics (e.g. poroelasticity, thermoelasticity). Transient and stationary examples are given as well as linear and nonlinear. Completed with a mathematical and mechanical glossary, the book will serve as a comprehensive text book linking applied mathematics to real world engineering problems

Título: Fourier BEM Recurso electrónico] Generalization of Boundary Element Methods by Fourier Transform by Fabian M.E. Duddeck

Edición: 1st ed. 2002

Editorial: Berlin, Heidelberg Springer Berlin Heidelberg 2002

Descripción física: II, 182 p

Mención de serie: Lecture notes in applied mechanics 5 Lecture Notes in Applied and Computational Mechanics 5

ISBN: 9783540456261 9783642077272 9783540431381 9783642536489

Materia: Fourier, Análisis de Ecuaciones integrales

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es