## <<Natural Borndary Int>>

### 图书基本信息

书名: <<Natural Borndary Integral Method and Its Applications自然边界元方法的数学理论>>

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### 内容概要

Boundary element methods are very important for solving boundary value problems in PDEs. Many boundary value problems of partial differential equations can be reduced into boundary integral equations by the natural boundary reduction. In this book the natural boundary integral method, suggested and developed by Feng and Yu, is introduced systematically. It is quite different from popuar boundary element methods and has many distinctive advantages The variational principle is conserved after the natural boundary reduction, and some useful properties ar also preserved faithfully. Moreover, it can be applied directlyand naturally in the coupling method and the domain decomposition method of finite and boundary elements Most of the material in this book has only appeared in the author s previous papers. Compared with its Chinese edition (SciencePress, Bejing 1993), many new research results such as the domain decomposition methods based on the natural boundary reduction are added. This book is intended for graduate students and researcers of computional and applied mathematics, scientific computing, comutational mechanics and physics, It is also of interest to university lecturers, scientists and engineers who are interested in the application of the boundary element method.

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