

ON THE APPLICATION OF THE FINITE-ELEMENT METHOD TO
ENVIRONMENTAL HYDRODYNAMIC MODELING

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by

Safwan Hadi

Thesis Committee:

Brent S. Gallagher, Chairman

Lorenz Magaard

Harold G. Loomis

ABSTRACT

The basic concepts of the finite element method are presented in an orderly manner as steps to understanding the computer programs written by Dr. Gary Niemeyer for simulating the hydrodynamic equations. A two-dimensional simulation of wave propagation in a straight, rectangular canal is presented as an example illustrating how the programs work in detail.