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1.2.7 Navier–Stokes and Euler equations -- 1.3 Inviscid,
incompressible flow -- 1.3.1 Velocity potential solution -- 1.4
Incompressible (or nearly incompressible) flows -- 1.5 Concluding
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method -- 2.2.2 A finite volume approximation

Sommario/riassunto

This book, 'The Finite Element Method for Fluid Dynamics', authored by Olek C. Zienkiewicz, Robert L. Taylor, and P. Nithiarasu, provides a comprehensive exploration of the finite element method as applied to fluid dynamics. The text covers fundamental equations of fluid dynamics, numerical methods, and advanced topics such as convection-dominated problems, turbulence modeling, compressible flows, and porous media. It is designed to serve as both a theoretical and practical guide, incorporating the latest developments in the field. The book is intended for researchers, practitioners, and graduate-level students in engineering and computational sciences, aiming to enhance understanding and application of finite element techniques in solving complex fluid dynamic problems.
