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Nota di contenuto	Brian Spalding: Some Contributions to Computational Fluid Dynamics during the Period 1993 to 2004 -- The SUPER Numerical Scheme for the discretization of the convection terms in Computational Fluid Dynamics computations -- Examples of Decompositions for Time and Space Domains and Discretization of Equations for General Purpose Computational Fluid Dynamics Programs and Historical Perspective of Some Key Developments -- A Finite Volume Procedure for Thermofluid System Analysis in a Flow Network -- Modeling Proton Exchange Membrane Fuel Cells – A Review -- CFD Modeling of Data Centers --

Sommario/riassunto

Prof. D. Brian Spalding, working with a small group of students and colleagues at Imperial College, London in the mid-to late-1960's, single-handedly pioneered the use of Computational Fluid Dynamics (CFD) for engineering practice. This book brings together advances in computational fluid dynamics in a collection of chapters authored by leading researchers, many of them students or associates of Prof. Spalding. The book intends to capture the key developments in specific fields of activity that have been transformed by application of CFD in the last 50 years. The focus is on review of the impact of CFD on these selected fields and of the novel applications that CFD has made possible. Some of the chapters trace the history of developments in a specific field and the role played by Spalding and his contributions. The volume also includes a biographical summary of Brian Spalding as a person and as a scientist, as well as tributes to Brian Spalding by those whose life was impacted by his innovations. This volume would be of special interest to researchers, practicing engineers, and graduate students in various fields, including aerospace, energy, power and propulsion, transportation, combustion, management of the environment, health and pharmaceutical sciences..