1. Record Nr. UNINA9910484042603321

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Titolo	Computational fluid dynamics and the theory of fluidization : applications of the kinetic theory of granular flow / / Huilin Lu, Dimitri Gidaspow, Shuyan Wang
Pubbl/distr/stampa	Singapore : , : Springer, , [2021] ©2021
ISBN	981-16-1558-6
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XI, 198 p. 100 illus., 55 illus. in color.)
Disciplina	620.1064
Soggetti	Computational fluid dynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1: Introduction to Multiphase Flow Basic Equations -- Chapter 2: Constitutive Equations with Kinetic Theory of Granular Flow -- Chapter 3: Homogeneous and Nonhomogeneous Interfacial Momentum Closure Experimental Foundation -- Chapter 4: Tutorial for Numerical Methods and Computer Programs -- Chapter 5: Cases for Numerical Simulations of Fluidized bed Systems.
Sommario/riassunto	This book is for engineers and students to solve issues concerning the fluidized bed systems. It presents an analysis that focuses directly on the problem of predicting the fluid dynamic behavior which empirical data is limited or unavailable. The second objective is to provide a treatment of computational fluidization dynamics that is readily accessible to the non-specialist. The approach adopted in this book, starting with the formulation of predictive expressions for the basic conservation equations for mass and momentum using kinetic theory of granular flow. The analyses presented in this book represent a body of simulations and experiments research that has appeared in numerous publications over the last 20 years. This material helps to form the basis for university course modules in engineering and applied science at undergraduate and graduate level, as well as focused, post-experienced courses for the process, and allied industries.