

1. Record Nr.	UNINA9910480285003321
Titolo	Alcohol and harm prevention // edited by Justin Healey
Pubbl/distr/stampa	Thirroul, NSW : , : Spinney Press, , [2018] ©2018
ISBN	1-925339-71-8
Descrizione fisica	1 online resource (65 pages)
Collana	Issues in Society ; ; Volume 435
Disciplina	362.2920994
Soggetti	Alcoholism - Australia Drinking of alcoholic beverages - Australia Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.

2. Record Nr.	UNINA9910808026803321
Autore	Schellander David
Titolo	Cfd simulations of particle laden flows : particle transport and separation // David Schellander
Pubbl/distr/stampa	Hamburg, Germany : , : Anchor Academic Publishing, , 2014 ©2014
ISBN	3-95489-671-0
Descrizione fisica	1 online resource (153 p.)
Disciplina	620.106
Soggetti	Fluid mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	CFD simulations of particle laden flows; Preface; Abstract; Contents; Abbreviations; Chapter 1: Introduction and motivation; 1.1 Numerical simulation of particle-laden flow; 1.2 Aim of this work; 1.3 Organization of this book; Chapter 2: Eulerian granular phase modelling; 2.1 Continuity equation; 2.2 Moment balance; 2.3 Granular temperature; 2.4 Radial distribution function; 2.5 Drag coefficient and interphase momentum exchange; 2.6 Solids Stresses; 2.7 Turbulence modelling; 2.8 Boundary Conditions; Chapter 3: Lagrangian discrete phase modelling; 3.1 Force balance and torque balance 3.2 Forces on a particle 3.3 Torque; 3.4 Turbulent fluctuations; 3.5 Particle wall collisions; Chapter 4: The hybrid model EUgran+Poly; 4.1 Motivation and overview; 4.2 Coupling and exchange forces; 4.3 Coupling forces on the Eulerian granular phase; 4.4 Coupling forces on the Lagrangian tracer particles; 4.5 Simulation sequence and implementation; Chapter: Agglomeration; 5.1 Simple models; 5.2 Particle population balance equation; 5.3 Bus stop model; 5.4 Volume population balance model; Chapter 6: Validation by lab-scale experiments; 6.1 Dilute poly-dispersed flow in a duct 6.2 Mono-dispersed flow in a medium laden duct 6.3 Agglomeration of poly-dispersed particulate flow in a vertical pipe; Chapter 7: Application to cyclone separation; 7.2 Hybrid Model; 7.2 Agglomeration; Chapter 8: Conclusion and Outlook; A: Restitution coefficients are no constants; B: Computation of Lagrangian particle-

wall collision; C: UDF Structure of hybrid model; D: Cyclone dimensions based on Muschelknautz theory; E: Nomenclature; List of Figures; List of Tables; Bibliography

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## Sommario/riassunto

This study presents the basic models for discrete and continuous particle laden flow simulation. An overview of the two main approaches, the Lagrangian discrete particle model and the Eulerian granular phase model is given. Moreover these two approaches are combined to a hybrid model to use the benefits of the discrete and continuous description. This saves computational time and increase the efficiency of particle laden flow simulations. Furthermore the models are extended to poly-disperse particles including a simple agglomeration model based on a population balance equation. Finally the usa

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