1. Record Nr. UNINA9910452802103321

Autore	Herminghaus S (Stephan)
Titolo	Wet granular matter : a truly complex fluid / / Stephan Herminghaus
Pubbl/distr/stampa	Singapore : , : World Scientific, , 2013 ©2013
ISBN	981-4417-70-X
Descrizione fisica	1 online resource (330 p.)
Collana	Series in soft condensed matter, , 1793-737X ; ; Vol. 6
Disciplina	530.4/13
Soggetti	Soft condensed matter Wetting Granular materials - Permeability Granular materials - Mechanical properties Electronic books.
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 and index.
Nota di contenuto	Foreword; Preface; Contents; 1. Introduction; 1.1 The significance of wet granular matter; 1.2 Energy scales; 1.3 Typical questions to be asked; 1.4 How we shall proceed; 2. Grains and Granular Fluids; 2.1 Grains; 2.1.1 Kinetic theory; 2.1.2 Dissipative collisions; 2.1.3 Grain shape; 2.1.4 Grain size; 2.1.5 Some phenomenological aspects of dry granulates; 2.2 Granular fluids; 2.2.1 Buoyant clouds; 2.2.2 Filling an earthquake fissure; 2.2.3 Granular flow with gaseous carrier; 2.2.4 Granular flow with liquid carrier; 2.2.5 Dilatancy; 2.3 Conclusions; Further reading; 3. Wetting 3.1 Planar substrates3.1.1 Van der Waals forces; 3.1.2 Adsorption isotherms; 3.1.3 The contact angle; 3.1.4 The effective interface potential; 3.1.5 The interface displacement model; 3.1.6 Curved interfaces and the Laplace pressure; 3.1.7 The contact angle away from coexistence; 3.2 Rough substrates; 3.2.1 Presentation of the problem; 3.2.2 Descriptors for roughness; 3.2.3 The wetting phase diagram; 3.2.4 Adsorption isotherms on a rough substrate; 3.2.5 Contact angle hysteresis; 3.3 Conclusions; Further reading; 4. Capillary Forces; 4.1 Capillary bridge between at walls 4.1.1 Extremal surfaces4.1.2 Attractive force of a toroidal bridge; 4.2

Capillary bridge between spherical bodies; 4.2.1 Formation of the capillary bridge; 4.2.2 Capillary bridge force; 4.2.3 The interaction potential between wet grains; 4.2.4 The hysteretic nature of the capillary bridge force; 4.3 Capillary bridge between irregular grains; 4.3.1 Effects of grain shape; 4.3.2 Effects of grain surface roughness; 4.3.3 Small scale capillary bridges; 4.4 Force networks; 4.4.1 Frustrated wet force networks; 4.4.2 Self-assembled granular walkers: ratcheting; 4.5 Conclusions; Further reading
5. Wet Granular Gases5.1 Dynamical aspects of capillary bridges; 5.1.1 Short time dynamics of a capillary bridge; 5.1.2 The effective restitution coefficient; 5.2 Free cooling and clustering; 5.2.1 Granular temperature during free cooling; 5.2.2 Morphology of the emerging clusters; 5.2.3 A formal distinction between dry and wet cooling; 5.3 Liquid-gas coexistence; 5.3.1 Equation of state of wet granular gases; 5.3.2 Experimental verification of the critical point; 5.3.3 Non-equilibrium phase separation; 5.3.4 Universal aspects of the phase diagram
5.3.5 The interplay of dissipation mechanisms5.3.6 Interfaces and interfacial tensions; 5.3.7 Binodals and spinodals, wet and dry; 5.4 Collective phenomena far from thermal equilibrium; 5.4.1 Surface tension revisited; 5.4.2 Chaoticity of the wet granular gas; 5.4.3 Capillary bridges as active networks; 5.5 Conclusions; Further reading; 6. Wet Granular Piles; 6.1 Geometrical aspects of granular piles; 6.1.1 Random piles of equal spheres; 6.1.2 Effects of grain size: poly-dispersity; 6.1.3 Effects of grain shape; 6.2 Regimes of wetness; 6.2.1 The humidity regime; 6.2.2 The pendular regime
6.2.3 The funicular regime

Sommario/riassunto

This is a monograph written for the young and advanced researcher entering the field of wet granular matter, and is keen to understand the basic physical principles governing this state of soft matter. It treats wet granulates as an instance of a ternary system, consisting of the grains, a primary, and a secondary fluid. After addressing wetting phenomena in general and outlining the basic facts on dry granular systems, a chapter on basic mechanisms and their effects is dedicated to every region of the ternary phase diagram. Effects of grain shape and roughness are considered as well. Rather t

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Record Nr.	UNISALENTO991002768989707536
Autore	Chow Yih-Ching
Titolo	La filosofia cinese
Pubbl/distr/stampa	Milano : Garzanti, 1958
Descrizione fisica	113 p. ; 18 cm.
Collana	Saper tutto ; 118
Altri autori (Persone)	Falco, Giacomo
Disciplina	181.1
Soggetti	Filosofia cinese
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Trad. G. Falco Tit. orig.: La philosophie chinoise

3.	Record Nr.	UNINA9910808481503321
	Titolo	Emerging and readily available technologies and national security : a framework for addressing ethical, legal and societal issues / / Jean-Lou Chameau, William F. Ballhaus, and Herbert S. Lin, editors ; center for engineering, ethics, and society advisory group
	Pubbl/distr/stampa	Washington, District of Columbia : , : National Academies Press, , 2014 ©2014
	ISBN	0-309-29337-5 0-309-29335-9
	Descrizione fisica	1 online resource (349 p.)
	Disciplina	172.4
	Soggetti	National security - Moral and ethical aspects Armed Forces - Technological innovations - Moral and ethical aspects
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di contenuto	""Front Matter""; ""Preface""; ""Acknowledgment of Reviewers""; ""Contents""; ""Summary""; ""1 Framing the Issues""; ""2 Foundational Technologies""; ""3 Application Domains""; ""4 Sources of ELSI Insight""; ""5 An Analytical Framework for Identifying Ethical, Legal, and Societal Issues""; ""6 Going Beyond Initial A Priori Analysis""; ""7 Mechanisms for Addressing Ethical, Legal, and Societal Issues""; ""8 Findings and Recommendations""; ""Appendixes""; ""Appendix A: Committee Members and Staff""; ""Appendix B: Meeting Agendas and Participants"" ""Appendix C: Research and Development Organizations Within the Department of Defense""""""Appendix D: Established Institutional Mechanisms for Addressing Ethical, Legal, and Societal Issues""
	Sommario/riassunto	"Emerging and Readily Available Technologies and National Security addresses topics such as the ethics of using autonomous weapons that may be available in the future; the propriety of enhancing the physical or cognitive capabilities of soldiers with drugs or implants or prosthetics; and what limits, if any, should be placed on the nature and extent of economic damage that cyber weapons can cause. This report explores three areas with respect to emerging and rapidly available

technologies: the conduct of research; research applications; and unanticipated, unforeseen, or inadvertent ethical, legal, and societal issues. The report articulates a framework for policy makers, institutions, and individual researchers to think about issues as they relate to these technologies of military relevance and makes recommendations for how each of these groups should approach these considerations in its research activities."--Publisher's description.