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Titolo	3D discrete element workbench for highly dynamic thermo-mechanical analysis : GranOO. Volume 3 / / Damien Andre, Jean-Luc Charles, Ivan Iordanoff ; coordinated by Ivan Iordanoff
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Descrizione fisica	1 online resource (175 p.)
Collana	Numerical methods in engineering series : discrete element model and simulation of continuous materials behavior set ; ; volume 3
Soggetti	Materials - Dynamic testing Discrete element method Object-oriented methods (Computer science) UML (Computer science) 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	Table of Contents; Title; Copyright; List of Figures; List of Tables; Introduction; I.1. The black box problem; I.2. A numerical tool to study a tribological problem; I.3. Why have we chosen a free license?; I.4. Discrete element methods; I.5. Application to tribological problems; I.6. A brief history of the workbench GranOO; I.7. A design to serve versatility; I.8. Choice of the programming language; I.9. Book organization; 1: Object Oriented Approach and UML; 1.1. Object Oriented (OO) paradigms; 1.2. OO analysis and design; 1.3. UML diagrams; 2: Operating Architecture 2.1. The GranOO package2.2. Compilation process of the executable file; 2.3. Launching a GranOO executable; 2.4. The input files; 2.5. The magic world of the plugins; 2.6. The output files; 3: Focus on Libraries; 3.1. The geometrical library; 3.2. The DEM library; 3.3. The libMySandbox library; 3.4. Conclusion; 4: Tools and Practical Examples of Use of GranOO.; 4.1. Tool overview; 4.2. Granular simulation: the

		bluewave example; 4.3. The continuous discrete element model; 4.4. Conclusion; Conclusion; Appendices; Appendix 1: Using Quaternions; A1.1. Introduction; A1.2. Norm transformation A1.3. Direction transformationA1.4. Quaternion definition; A1.5. Mathematical properties; A1.6. Quaternion and attitude; A1.7. Quaternion and angular velocity; A1.8. Application to dynamics; A1.9. Numerical integration; A1.10. Conclusion; Appendix 2: Pendulum Problem Complete Code; Bibliography; Index; End User License Agreement
2.	Record Nr.	UNINA9910157828803321
	Autore	Gardner Robert <1929->
	Titolo	Experiments for future biologists / / Robert Gardner and Joshua Conklin
	Pubbl/distr/stampa	New York : , : Enslow Publishing, , 2017 2017
	ISBN	0-7660-8199-0
	Descrizione fisica	1 online resource (127 pages) : color illustrations
	Collana	Experiments for future STEM professionals
	Disciplina	570.78
	Soggetti	Biology - Experiments
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Some human biology experiments -- Classifying things -- An inside look at plants and animals -- Darwin and the theory of evolution.
	Sommario/riassunto	The experiments in this book cover the different areas of math and science that biologists use allowing students to explore the life functions of humans, animals, and plants; the classification of organisms; the theory of evolution; and genetics.