1.	Record Nr.	UNINA9910300116203321
	Titolo	Trends in Applications of Mathematics to Mechanics / / edited by Elisabetta Rocca, Ulisse Stefanelli, Lev Truskinovsky, Augusto Visintin
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
	ISBN	3-319-75940-X
	Edizione	[1st ed. 2018.]
	Descrizione fisica	1 online resource (ix, 373 pages)
	Collana	Springer INdAM Series, , 2281-518X ; ; 27
	Disciplina	515.7
	Soggetti	Mathematical physics Functional analysis Mathematical models Calculus of variations Probabilities Structural materials Mathematical Applications in the Physical Sciences Functional Analysis Mathematical Modeling and Industrial Mathematics Calculus of Variations and Optimal Control; Optimization Probability Theory and Stochastic Processes Structural Materials
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references.
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Sommario/riassunto	This volume originates from the INDAM Symposium on Trends on Applications of Mathematics to Mechanics (STAMM), which was held at the INDAM headquarters in Rome on 5–9 September 2016. It brings together original contributions at the interface of Mathematics and Mechanics. The focus is on mathematical models of phenomena issued from various applications. These include thermomechanics of solids and gases, nematic shells, thin films, dry friction, delamination, damage, and phase-field dynamics. The papers in the volume present novel results and identify possible future developments. The book is addressed to researchers involved in Mathematics and its applications to Mechanics.