

1. Record Nr.	UNINA9910300112303321
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Titolo	Mathematics for Sustainability // by John Roe, Russ deForest, Sara Jamshidi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-76660-0
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XIX, 523 p.)
Collana	Texts for Quantitative Critical Thinking, , 2523-8647
Disciplina	510
Soggetti	Mathematics Game theory Mathematical physics Mathematics of Planet Earth Game Theory, Economics, Social and Behav. Sciences Mathematical Applications in the Physical Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Measuring -- 2. Flowing -- 3. Networking -- 4. Changing -- 5. Risking -- 6. Deciding -- 7. Case Studies -- 8. Resources -- List of Figures -- List of Tables -- Bibliography -- Index.
Sommario/riassunto	Designed for the 21st century classroom, this textbook poses, refines, and analyzes questions of sustainability in a quantitative environment. Building mathematical knowledge in the context of issues relevant to every global citizen today, this text takes an approach that empowers students of all disciplines to understand and reason with quantitative information. Whatever conclusions may be reached on a given topic, this book will prepare the reader to think critically about their own and other people's arguments and to support them with careful, mathematical reasoning. Topics are grouped in themes of measurement, flow, connectivity, change, risk, and decision-making. Mathematical thinking is at the fore throughout, as students learn to model sustainability on local, regional, and global scales. Exercises emphasize concepts, while projects build and challenge communication skills. With no prerequisites beyond high school algebra, instructors

will find this book a rich resource for engaging all majors in the mathematics classroom. From the Foreword No longer will you be just a spectator when people give you quantitative information—you will become an active participant who can engage and contribute new insights to any discussion.[...] There are many math books that will feed you knowledge, but it is rare to see a book like this one that will help you cultivate wisdom.[...] As the authors illustrate, mathematics that pays attention to human considerations can help you look at the world with a new lens, help you frame important questions, and help you make wise decisions. Francis Edward Su, Harvey Mudd College.
