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	Titolo	A Course on Tug-of-War Games with Random Noise [[electronic resource]] : Introduction and Basic Constructions / / by Marta Lewicka
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-46209-9
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (ix, 254 pages) : illustrations
	Collana	Universitext, , 0172-5939
	Disciplina	515.7
	Soggetti	Potential theory (Mathematics)
		Probabilities
		Mathematical analysis
		Analysis (Mathematics)
		Potential Theory
		Probability Theory and Stochastic Processes
		Analysis
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	1 Introduction -- 2 The linear case: random walk and harmonic functions -- 3 Tug-of-War with noise. Case p [2,) -- 4 Boundary aware tug-of-war with noise. Case p (2,) -- 5 Game-regularity and convergence. Case p (2,) -- 6 Mixed tug-of-war with noise. Case p (1,) -- A Background in probability -- B Background in Brownian motion -- C Background in PDEs. D Solutions to selected exercises -- References -- Index.
	Sommario/riassunto	This graduate textbook provides a detailed introduction to the probabilistic interpretation of nonlinear potential theory, relying on the recently introduced notion of tug-of-war games with noise. The book explores both basic and more advanced constructions, carefully explaining the parallel between linear and nonlinear cases. The presentation is self-contained with many exercises, making the book suitable as a textbook for a graduate course, as well as for self-study. Extensive background and auxiliary material allow the tailoring of courses to individual student levels.