

1. Record Nr.	UNINA9910438146603321
Autore	Lawler Gregory F
Titolo	Intersections of random walks / / Gregory F. Lawler
Pubbl/distr/stampa	New York, : Birkhauser, 2013
ISBN	1-283-90945-6 1-4614-5972-9
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (225 p.)
Collana	Modern Birkhauser classics
Disciplina	519.282
Soggetti	Random walks (Mathematics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Reprint of the 1996 edition."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Simple Random Walk -- Harmonic Measure -- Intersection Probabilities -- Four Dimensions -- Two and Three Dimensions.- Self-Avoiding Walks.- Loop-Erased walk -- Recent Results.
Sommario/riassunto	A central study in Probability Theory is the behavior of fluctuation phenomena of partial sums of different types of random variable. One of the most useful concepts for this purpose is that of the random walk which has applications in many areas, particularly in statistical physics and statistical chemistry. Originally published in 1991, Intersections of Random Walks focuses on and explores a number of problems dealing primarily with the nonintersection of random walks and the self-avoiding walk. Many of these problems arise in studying statistical physics and other critical phenomena. Topics include: discrete harmonic measure, including an introduction to diffusion limited aggregation (DLA); the probability that independent random walks do not intersect; and properties of walks without self-intersections. The present softcover reprint includes corrections and addenda from the 1996 printing, and makes this classic monograph available to a wider audience. With a self-contained introduction to the properties of simple random walks, and an emphasis on rigorous results, the book will be useful to researchers in probability and statistical physics and to graduate students interested in basic properties of random walks.