1. Record Nr. UNINA9910784439303321

Autore	Rudnick Joseph Alan <1944->
Titolo	Elements of the random walk : an introduction for advanced students and researchers / / Joseph Rudnick, George Gaspari [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2004
ISBN	1-107-14767-0 1-282-39477-0 9786612394775 0-511-64435-3 0-511-64813-8 0-511-18750-5 0-511-56649-2 0-511-61091-2 0-511-18657-6
Descrizione fisica	1 online resource (xv, 329 pages) : digital, PDF file(s)
Disciplina	519.2/82
Soggetti	Random walks (Mathematics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 323-325) and index.
Nota di contenuto	Cover; Half-title; Title; Copyright; Dedication; Contents; Preface; 1 Introduction to techniques; 2 Generating functions I; 3 Generating functions II: recurrence, sites visited, and the role of dimensionality; 4 Boundary conditions, steady state, and the electrostatic analogy; 5 Variations on the random walk; 6 The shape of a random walk; 7 Path integrals and self-avoidance; 8 Properties of the random walk: introduction to scaling; 9 Scaling of walks and critical phenomena; 10 Walks and the O(n) model: mean field theory and spin waves; 11 Scaling, fractals, and renormalization 12 More on the renormalization groupReferences; Index
Sommario/riassunto	Random walks have proven to be a useful model in understanding processes across a wide spectrum of scientific disciplines. Elements of the Random Walk is an introduction to some of the most powerful and

		general techniques used in the application of these ideas. The mathematical construct that runs through the analysis of the topics covered in this book, unifying the mathematical treatment, is the generating function. Although the reader is introduced to analytical tools, such as path-integrals and field-theoretical formalism, the book is self-contained in that basic concepts are developed and relevant fundamental findings fully discussed. Mathematical background is provided in supplements at the end of each chapter, when appropriate. This text will appeal to graduate students across science, engineering and mathematics who need to understand the applications of random walk techniques, as well as to established researchers.

2.	Record Nr.	UNINA9910299482703321
	Autore	Rybin Yu. K
	Titolo	Measuring signal generators : theory & design / / Yuriy K. Rybin
	Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , 2014
	ISBN	3-319-02833-2
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (xix, 488 pages) : illustrations
	Collana	Signals and Communication Technology, , 1860-4862
	Disciplina	621.3815 621.3822
	Soggetti	Signal generators Signal processing
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	"ISSN: 1860-4862." "ISSN: 1860-4870 (electronic)."
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	Theory and Praxis of Measuring Signal Sources: Present and Future -- Synthesis of Mathematical Models for Measuring Signals -- Synthesis of Models for Self-Oscillating Systems of Generators -- Selected Issues of the Theory of Sinusoidal Generators -- Synthesis of Block Diagrams of Measuring Signal Generators -- Optimization of Oscillatory Systems of Generators -- Analog Signal Generators -- Digital Signal Generators -- Practical Design of Measuring Signal Generators.
	Sommario/riassunto	The book brings together the following issues: Theory of deterministic,

random and discrete signals reproducible in oscillatory systems of generators; Generation of periodic signals with a specified spectrum, harmonic distortion factor and random signals with specified probability density function and spectral density; Synthesis of oscillatory system structures; Analysis of oscillatory systems with non-linear elements and oscillation amplitude stabilization systems; It considers the conditions and criteria of steady-state modes in signal generators on active four-pole elements with unidirectional and bidirectional transmission of signals and on two-pole elements; analogues of Barkhausen criteria; Optimization of oscillatory system structures by harmonic distortion level, minimization of a frequency error and set-up time of the steady state mode; Theory of construction of random signal generators; Construction of discrete and digital signal generators; Practical design of main units of generators; Practical block diagrams of both analog and digital signal generators.