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Titolo	Combinatorics and physics : Mini-Workshop on Renormalization, December 15-16, 2006, Max Planck Institut fur Mathematik, Bonn, Germany : Conference on Combinatorics and Physics, March 19-23, 2007, Max Planck Institut fur Mathematik, Bonn, Germany / / Kurusch Ebrahimi-Fard, Matilde Marcolli, Walter D. van Suijlekom, editors
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ISBN	0-8218-8218-X
Descrizione fisica	1 online resource (480 p.)
Collana	Contemporary mathematics ; ; volume 539
Disciplina	530.14/3
Soggetti	Renormalization group Quantum field theory Numerical integration Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Contents""; ""Preface""; ""List of participants""; ""One-particle irreducibility with initial correlations""; ""Multiple zeta values and periods: From moduli spaces to Feynman integrals""; ""From quantum electrodynamics to posets of planar binary trees""; ""Sweedler's duals and Schutzenberger's calculus""; ""Primitive elements of the Hopf algebra of free quasi-symmetric functions""; ""A Renormalisation Group approach to Stochastic Loewner Evolutions""; ""On the causal gauge principle""; ""1. Introduction""; ""2. Overview of the CGI method""; ""3. The abelian model""; ""4. Three MVBs"" ""5. The Weinberga€?Salam model within CGI""""6. Discussion""; ""References""; ""Abstract integration, combinatorics of trees and differential equations""; ""Rooted trees appearing in products and co-products""; ""Magnus expansions and beyond""; ""Wilsonian renormalization, differential equations and Hopf algebras""; ""1. Introduction""; ""2. Basics of wilsonian renormalization""; ""3. Rooted trees and power series of non linear operators""; ""4. Renormalization,

effective actions and Feynman diagrams""; ""5. Conclusion and outlook""; ""Acknowledgements""; ""References""
""Algebraic analysis of non-renormalization theorems in supersymmetric field theories""""""Not so non-renormalizable gravity""; ""Renormalised multiple zeta values which respect quasi-shuffle relations""; ""Formulas for the Connesa€?Moscovici Hopf algebra""; ""Hopf algebras and the combinatorics of connected graphs in quantum field theory""; ""Hopf Algebras of Formal Diffeomorphisms and Numerical Integration on Manifolds""; ""A combinatorial and field theoretic path to quantum gravity: The new challenges of group field theory""
""Noncommutative formal Taylor expansions and second quantised regularised traces""""""Motives: An introductory survey for physicists""; ""1. Introduction""; ""2. The Grothendieck ring""; ""3. The Tannakian formalism""; ""4. Weil cohomology""; ""5. Classical motives""; ""6. Mixed motives""; ""7. Motivic measures and zeta functions""; ""Appendix A. Motivic ideas in physics (by M.Marcolli)""; ""References""; ""Combinatorics and Feynman graphs for gauge theories""; ""Multi-scale Analysis and Non-commutative Field Theory""

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Autore	Bardi Ugo
Titolo	Before the Collapse : A Guide to the Other Side of Growth / / by Ugo Bardi
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ISBN	3-030-29038-7
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (256 pages)
Disciplina	158.1
Soggetti	Nature Ecology Economics - Sociological aspects Statistical physics Computational complexity Economic policy Economics Phase transformations (Statistical physics) Popular Science in Nature and Environment Organizational Studies, Economic Sociology Applications of Nonlinear Dynamics and Chaos Theory Complexity

	Political Economy/Economic Systems Phase Transitions and Multiphase Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Forword by Susan Kucera -- The Science of Doom: Modeling the Future -- Complex Systems and the Science of Collapse -- The Practice of Collapse -- Strategies for Managing Collapse -- What can we Learn from Seneca? -- Six things you should know before collapse.
Sommario/riassunto	Nobody has to tell you that when things go bad, they go bad quickly and seemingly in bunches. Complicated structures like buildings or bridges are slow and laborious to build but, with a design flaw or enough explosive energy, take only seconds to collapse. This fate can befall a company, the stock market, or your house or town after a natural disaster, and the metaphor extends to economies, governments, and even whole societies. As we proceed blindly and incrementally in one direction or another, collapse often takes us by surprise. We step over what you will come to know as a “Seneca cliff”, which is named after the ancient Roman philosopher, Lucius Annaeus Seneca, who was the first to observe the ubiquitous truth that growth is slow but ruin is rapid. Modern science, like ancient philosophy, tell us that collapse is not a bug; it is a feature of the universe. Understanding this reality will help you to see and navigate the Seneca cliffs of life, or what Malcolm Gladwell called “tipping points.” Efforts to stave off collapse often mean that the cliff will be even steeper when you step over it. But the good news is that what looks to you like a collapse may be nothing more than the passage to a new condition that is better than the old. This book gives deeper meaning to familiar adages such as “it’s a house of cards”, “let nature take its course”, “reach a tipping point”, or the popular Silicon Valley expression, “fail fast, fail often.” As the old Roman philosopher noted, “nothing that exists today is not the result of a past collapse”, and this is the basis of what we call “The Seneca Strategy.” This engaging and insightful book will help you to use the Seneca Strategy to face failure and collapse at all scales, to understand why change may be inevitable, and to navigate the swirl of events that frequently threaten your balance and happiness. You will learn: How ancient philosophy and modern science agree that failure and collapse are normal features of the universe Principles that help us manage, rather than be managed by, the biggest challenges of our lives and times Why technological progress may not prevent economic or societal collapse Why the best strategy to oppose failure is not to resist at all costs How you can “rebound” after collapse, to do better than before, and to avoid the same mistakes.