

1. Record Nr.	UNINA9910482968603321
Titolo	Well-Quasi Orders in Computation, Logic, Language and Reasoning : A Unifying Concept of Proof Theory, Automata Theory, Formal Languages and Descriptive Set Theory // edited by Peter M. Schuster, Monika Seisenberger, Andreas Weiermann
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-30229-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (X, 391 p. 103 illus., 4 illus. in color.)
Collana	Trends in Logic, Studia Logica Library, , 1572-6126 ; ; 53
Disciplina	511.6
Soggetti	Logic Graph theory Mathematical logic Combinatorics Logic design Graph Theory Mathematical Logic and Formal Languages Logic Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Well, Better, and in-between -- The Categorical Structure of Well-Quasi Orders -- On Kriz's Theorem -- On the Width of FAC Orders, a Somewhat Rediscovered Notion -- Preliminary Well-quasi Orders in the Study of Hierarchies and Reducibilities -- The Ideal Approach to Computing Closed Subsets in Well-Quasi-Orderings -- Well-Quasi Orders and Regularity -- Well Quasi Ordering and Embeddability of Relational Structures -- A Functional Interpretation of Zorn's Lemma and its Application in Well-Quasi-Order Theory -- The Reverse Mathematics of wqos and bqos -- Well-partial Ordering and the Maximal Order Type -- TBC -- The Worlds of Well-Partial-Orders and Ordinal Notation systems -- Bounds for the Strength of the Graph Minor Theorem.
Sommario/riassunto	This book bridges the gaps between logic, mathematics and computer

science by delving into the theory of well-quasi orders, also known as wqos. This highly active branch of combinatorics is deeply rooted in and between many fields of mathematics and logic, including proof theory, commutative algebra, braid groups, graph theory, analytic combinatorics, theory of relations, reverse mathematics and subrecursive hierarchies. As a unifying concept for slick finiteness or termination proofs, wqos have been rediscovered in diverse contexts, and proven to be extremely useful in computer science. The book introduces readers to the many facets of, and recent developments in, wqos through chapters contributed by scholars from various fields. As such, it offers a valuable asset for logicians, mathematicians and computer scientists, as well as scholars and students.
