

1. Record Nr.	UNINA9910827758803321
Titolo	Continuous lattices and domains // G. Gierz ... [et al.]
Pubbl/distr/stampa	Cambridge ; ; New York, : Cambridge University Press, 2003
ISBN	1-107-13080-8 1-280-41832-X 9786610418329 0-511-17882-4 1-139-14721-8 0-511-06356-3 0-511-05723-7 0-511-30598-2 0-511-54272-0 0-511-07202-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xxxvi, 591 pages) : digital, PDF file(s)
Collana	Encyclopedia of mathematics and its applications ; ; v. 93
Altri autori (Persone)	GierzGerhard
Disciplina	511.3/3
Soggetti	Continuous lattices
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. 523-567) and index.
Nota di contenuto	Foreword to A Compendium of Continuous Lattices -- Introduction to A Compendium of Continuous Lattices -- A Primer on Ordered Sets and Lattices -- I. Order Theory of Domains -- II. The Scott Topology -- III. The Lawson Topology -- IV. Morphisms and Functors -- V. Spectral Theory of Continuous Lattices -- VI. Compact Posets and Semilattices -- VII. Topological Algebra and Lattice Theory: Applications -- Dissertation and Master's Theses -- Memos Circulated in the Seminar on Continuity in Semilattices (SCS).
Sommario/riassunto	Information content and programming semantics are just two of the applications of the mathematical concepts of order, continuity and domains. The authors develop the mathematical foundations of partially ordered sets with completeness properties of various degrees, in particular directed complete ordered sets and complete lattices. Uniquely, they focus on partially ordered sets that have an extra order

relation, modelling the notion that one element 'finitely approximates' another, something closely related to intrinsic topologies linking order and topology. Extensive use is made of topological ideas, both by defining useful topologies on the structures themselves and by developing close connections with numerous aspects of topology. The theory so developed not only has applications to computer science but also within mathematics to such areas as analysis, the spectral theory of algebras and the theory of computability. This authoritative, comprehensive account of the subject will be essential for all those working in the area.
