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Titolo	Turing Machines with Sublogarithmic Space [[electronic resource] /] / by Andrzej Szepietowski
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Descrizione fisica	1 online resource (VIII, 114 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 843
Disciplina	511.3
Soggetti	Computer logic Mathematical logic Logics and Meanings of Programs Mathematical Logic and Formal Languages Mathematical Logic and Foundations
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Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Basic Notions -- Languages acceptable with logarithmic space -- Examples of languages acceptable with sublogarithmic space -- Lower bounds for accepting non-regular languages -- Space constructible functions -- Halting property and closure under complement -- Strong versus weak mode of space complexity -- Padding -- Deterministic versus nondeterministic Turing machines -- Space hierarchy -- Closure under concatenation -- Alternating hierarchy -- Independent complement -- Other models of Turing machines.
Sommario/riassunto	This comprehensive monograph investigates the computational power of Turing machines with sublogarithmic space. The studies are devoted to the Turing machine model introduced by Stearns, Hartmanis, and Lewis (1965) with a two-way read-only input tape and a separate two- way read-write work tape. The book presents the key results on space complexity, also as regards the classes of languages acceptable, under the perspective of a sublogarithmic number of cells used during computation. It originates from courses given by the author at the Technical University of Gdansk and Gdansk University in 1991 and 1992. It was finalized in 1994 when the author visited Paderborn

University and includes the most recent contributions to the field.
