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Nota di contenuto	Cameo of a Consummate Computabilist -- Surfing with Rod -- Prequel to the Cornell Computer Science Department -- Some Questions in Computable Mathematics -- Introduction to Autoreducibility and Mitoticity -- The Complexity of Complexity -- Bounded Pushdown Dimension vs Lempel Ziv Information Density -- On Being Rod's Graduate Student -- Herrmann's Beautiful Theorem on Computable Partial Orderings -- Effectiveness of Hindman's Theorem for Bounded Sums -- Reverse Mathematics of Matroids -- Weakly Represented Families in Reverse Mathematics -- The Vitali Covering Theorem in the

Weihrauch Lattice -- Parallel and Serial Jumps of Weak König's Lemma -- Effectively Existentially-Atomic Structures -- Irreducibles and Primes in Computable Integral Domains -- Revisiting Uniform Computable Categoricity: For the Sixtieth Birthday of Prof. Rod Downey -- Enumeration Reducibility and Computable Structure Theory -- Strength and Weakness in Computable Structure Theory -- On Constructive Nilpotent Groups -- Computable Model Theory over the Reals -- The Lattice of Computably Enumerable Vector Spaces -- Injection Structures Specified by Finite State Transducers -- A Survey on Universal Computably Enumerable Equivalence Relations -- Higher Computability -- 1 1 in Every Real in a 1 1 Class of Reals is 1 -- A Survey of Results on the D-C.E. and N-C.E. Degrees -- There Are no Maximal D. C.E. WTT-Degrees -- A Rigid Cone in the Truth-Table Degrees with Jump -- Asymptotic Density and the Theory of Computability : A Partial Survey -- On Splits of Computably Enumerable Sets -- 1-Generic Degrees Bounding Minimal Degrees Revisited -- Nondensity of Double Bubbles in the D.C.E. Degrees -- On the Strongly Bounded Turing Degrees of the Computably Enumerable Sets -- Permutations of the Integers Induce Only the Trivial Automorphism of the Turing Degrees -- On the Reals which Cannot Be Random -- A Note on the Differences of Computably Enumerable Reals -- Effective Bi-immunity and Randomness -- On Work of Barmpalias and Lewis-Pye: A Derivation on the D.C.E. Reals -- Turing Degrees and Muchnik Degrees of Recursively Bounded DNR Functions -- Algorithmic Statistics: Forty Years Later -- Lowness, Randomness, and Computable Analysis. .

Sommario/riassunto

This Festschrift is published in honor of Rodney G. Downey, eminent logician and computer scientist, surfer and Scottish country dancer, on the occasion of his 60th birthday. The Festschrift contains papers and laudations that showcase the broad and important scientific, leadership and mentoring contributions made by Rod during his distinguished career. The volume contains 42 papers presenting original unpublished research, or expository and survey results in Turing degrees, computably enumerable sets, computable algebra, computable model theory, algorithmic randomness, reverse mathematics, and parameterized complexity, all areas in which Rod Downey has had significant interests and influence. The volume contains several surveys that make the various areas accessible to non-specialists while also including some proofs that illustrate the flavor of the fields.