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Nota di contenuto	Space, Time, and Motion -- The Principle of Relativity -- Elementary Structure of Classical Space-Time -- Elementary Structure of Relativistic Space-Time -- The Complete Theory on One Page -- Newtonian Mechanics -- Einstein’s Idea of Energy-Mass Equivalence -- Relativistic Phenomena and Paradoxes -- Mathematical Formalism of Special Relativity -- Representations of the Lorentz Group Weyl Equation and Dirac Equation -- Electrodynamics in Exterior Calculus -- A Lattice Modell of Relativistic Space-Time -- Einstein’s General Theory of Relativity -- Appendix.
Sommario/riassunto	This book discusses in detail the special theory of relativity without including all the instruments of theoretical physics, enabling readers who are not budding theoretical physicists to develop competence in the field. An arbitrary but fixed inertial system is chosen, where the known velocity of light is measured. With respect to this system a moving clock loses time and a moving length contracts. The book then presents a definition of simultaneity for the other inertial frames without using the velocity of light. To do so it employs the known reciprocity principle, which in this context serves to provide a definition of simultaneity in the other inertial frames. As a consequence, the

Lorentz transformation is deduced and the universal constancy of light is established. With the help of a lattice model of the special theory of relativity the book provides a deeper understanding of the relativistic effects. Further, it discusses the key STR experiments and formulates and solves 48 problems in detail.