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Titolo	Elementary Approach to Special Relativity / / by Helmut Günther
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Nota di contenuto	The Discovery of the Ether -- The Ether and the Wave Equation -- The Physical Elements of the Special Theory of Relativity -- Where does the Wave Equation Come from? -- The Wave Equation and the Third Axiom Lattice and the Continuum Crystalline Solid – Dislocations -- The sine-Gordon Equation of a Dislocation Natural Measuring-Rods and Clocks Measuring-rods and Clocks in Motion -- A Clock Paradox Measurement of the Critical Velocity -- The Lorentz Transformation -- The Linear Approximation of Special Relativity -- The Principle of Relativity: The Lost Crystal -- Two Axiomatic Systems for Special Relativity -- The Twin Paradox.-The Doppler Effect. -- Aberration -- Tachyons and Causality Violation of Relativity -- The Rediscovered Crystal Particles and Fields -- A Particle Solution- the Inertia of Energy -- The Michelson Experiment -- Elastic Displacements and Waves -- Eigen -- Stresses and Dislocations -- The Separation of Eigen Stresses -- Particles and Tachyons -- Tachyons of the Plastic Deformation -- On the Problem of Causality: Particle -- Tachyon Collisions.
Sommario/riassunto	This book presents an alternative representation of Einstein's Special Theory of Relativity, which makes Special Relativity much more comprehensible. Moreover, one will come across a fundamental relationship between the Special Theory of Relativity and the mechanics

of space lattice. In all previous formulations, the Einsteinian special principle of relativity, in one or the other form is used as the starting point for Special Relativity. In correspondence to this principle, one takes it as granted apriori, that all observers independent of their uniform motion to each other measure one and the same propagation velocity of a light signal. This book is thought of as a lecture for physicists, mathematicians and computer scientists and concentrates on the students of these fields. The book should reach a broad circle of interested readers from the fields of natural sciences and philosophy and provide an invigorating experience for engineers.
