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Titolo	The Special Theory of Relativity [[electronic resource] ] : A Mathematical Approach / / by Farook Rahaman
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Soggetti	Mathematical physics Projective geometry Mechanics Mathematical Physics Mathematical Applications in the Physical Sciences Projective Geometry Classical Mechanics
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Nota di contenuto	Chapter 1. Pre-Relativity and Galilean Transformation -- Chapter 2. Michelson-Morley Experiment and Velocity of Light -- Chapter 3. Lorentz Transformations -- Chapter 4. Mathematical Properties of Lorentz Transformations -- Chapter 5. More Mathematical Properties of Lorentz Transformations -- Chapter 6. Geometric Interpretation of Spacetime -- Chapter 7. Relativistic Velocity and Acceleration -- Chapter 8. Four Dimensional World -- Chapter 9. Mass in Relativity -- Chapter 10. Relativistic Dynamics -- Chapter 11. Photon in Relativity -- Chapter 12. Relativistic Lagrangian and Hamiltonian -- Chapter 13. Electrodynamics in Relativity -- Chapter 14. Relativistic Mechanics of continua.
Sommario/riassunto	The book expounds the major topics in the special theory of relativity. It provides a detailed examination of the mathematical foundation of the special theory of relativity, relativistic mass, relativistic mechanics and relativistic electrodynamics. As well as covariant formulation of relativistic mechanics and electrodynamics, the book discusses the relativistic effect on photons. Using a mathematical approach, the text

offers graduate students a clear, concise view of the special theory of relativity. Organized into 14 chapters and two appendices, the content is presented in a logical order, and every topic has been dealt with in a simple and lucid manner. To aid understanding of the subject, the book provides numerous relevant worked examples in every chapter. The book's mathematical approach helps students in their independent study and motivates them to research the topic further.

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