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Nota di bibliografia	Includes bibliographical references (p. 185-188) and index.
Nota di contenuto	1. Something is wrong with classical electromagnetism. 1.1. Maxwell equations and wave-fronts. 1.2. Wave-front propagation. 1.3. Fronts from an oscillating dipole. 1.4. Preliminary conclusions -- 2. First steps towards the new model. 2.1. Modified Maxwell equations. 2.2. Perfect spherical waves. 2.3. Travelling signal-packets. 2.4. Lagrangian formulation. 2.5. Free-waves and the eikonal equation. 2.6. Lorentz invariance -- 3. Interaction of waves with matter. 3.1. Wave bouncing off an obstacle. 3.2. Diffraction phenomena. 3.3. Adding the mechanical terms. 3.4. Properties of the new set of equations -- 4. The equations in the framework of general relativity. 4.1. Preliminary considerations. 4.2. The energy tensor. 4.3. Unified field equations. 4.4. The divergence of the magnetic field -- 5. Building matter from fields. 5.1. Adding the pressure tensor. 5.2. On the existence of particle-like solutions. 5.3. Looking for 2-D constrained waves. 5.4. Neutrinos, electrons and protons. 5.5. Connections with a Dirac type equation -- 6. Final speculative considerations. 6.1. Towards deterministic quantum mechanics. 6.2. Conclusions.
Sommario/riassunto	The classical theory of electromagnetism is entirely revised in this book by proposing a variant of Maxwell equations that allows solitonic

solutions (photons). The Lagrangian is the standard one, but it is minimized on a constrained space that enforces the wave packets to follow the rules of geometrical optics. Exact solutions are explicitly shown; this opens a completely new perspective for the study of light wave phenomena. In the framework of general relativity, the equations are written in covariant form. A coupling with the metric is obtained through the Einstein equation, whose solution