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Nota di contenuto	Preface; Contents; 1. Introduction; 1.1 Philosophy; 1.2 Phase Spaces, and the Dirac Derivation; 1.3 Non-commutative Algebraic Geometry, andModuli of Simple Modules; 1.4 Dynamical Structures; 1.5 Quantum Fields and Dynamics; 1.6 Classical Quantum Theory; 1.7 Planck's Constants, and Fock Space; 1.8 General Quantum Fields, Lagrangians and Actions; 1.9 Grand Picture. Bosons, Fermions, and Supersymmetry; 1.10 Connections and the Generic Dynamical Structure; 1.11 Clocks and Classical Dynamics; 1.12 Time-Space and Space-Times; 1.13 Cosmology, Big Bang and All That 1.14 Interaction and Non-commutative Algebraic Geometry1.15 Apology; 2. Phase Spaces and the Dirac Derivation; 2.1 Phase Spaces; 2.2 The Dirac Derivation; 3. Non-commutative Deformations and the Structure of the Moduli Space of Simple Representations; 3.1 Non-commutative Deformations; 3.2 The O-construction; 3.3 Iterated Extensions; 3.4 Non-commutative Schemes; 3.4.1 Localization, Topology and the Scheme Structure on Simp(A); 3.4.2 Completions of Simpn(A); 3.5 Morphisms, Hilbert Schemes, Fields and Strings; 4. Geometry of Time-spaces and the General Dynamical Law; 4.1

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Sommario/riassunto	This is a monograph about non-commutative algebraic geometry, and its application to physics. The main mathematical inputs are the non-commutative deformation theory, moduli theory of representations of associative algebras, a new non-commutative theory o