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Nota di contenuto	Contents ; Preface ; Chapter 1 Introduction ; 1.1 Ontology of QFT: Aims Methods and Work Ahead ; 1.2 A Layperson's Guide to QFT ; 1.3 Basic Mathematical Formulations of QFT ; 1.4 A Layperson's Guide to Ontology Semantics and Epistemology ; 1.5 Overview of this Book PART 1: Approaches to Ontology Chapter 2 Candidate General Ontologies for Situating Quantum eld Theory ; 2.1 Methodological Preamble ; 2.2 Substance and Attribute ; 2.3 Applied Set Theory ; 2.4 Fact Ontologies ; 2.5 Occurrent Ontologies ; 2.6 Trope Ontologies ; 2.7 Possible Worlds 2.8 Factored Ontologies 2.9 Tentative Conclusions ; Chapter 3 'Quanta' Tropes or Processes: Ontologies for QFT Beyond the Myth of Substance ; 3.1 A Methodological Preface ; 3.2 'Identical Particles' and the Myth of Substance ; 3.3 Non-Individual Particulars or Quanta 3.4 Fields of Trope Structures? 3.5 Fields as

Free Processes? ; 3.6 Conclusion ;
Chapter 4 Analytical Ontologists in Action: A Comment on Seibt and
Simons ; 4.1
Ontology and Physics: Seibt Versus Simons
; 4.2 Processes and Ontological Parsimony
4.3 Tropes Invariant Factors and Quantum Field Theory
4.4 Conclusion ; Chapter 5 How Do Field Theories Refer to
Entities in a Field? ; 5.1
Introduction ; 5.2 Direct and Descriptive Reference
; 5.3 How Does Linguistic Analysis Apply to Physical Theories?
5.4 Direct Reference to Local Fields

Sommario/riassunto

Quantum field theory (QFT) provides the framework for many fundamental theories in modern physics, and over the last few years there has been growing interest in its historical and philosophical foundations. This anthology on the foundations of QFT brings together 15 essays by well-known researchers in physics, the philosophy of physics, and analytic philosophy. Many of these essays were first presented as papers at the conference "Ontological Aspects of Quantum Field Theory", held at the Zentrum für interdisziplinäre Forschung (ZiF), Bielefeld, Germany. The essays contain cutting-edge work
