1. Record Nr. UNINA9911007354803321 Autore Malik Pravir Titolo Pioneering New Avenues in Quantum Technology / / by Pravir Malik Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9654-63-7 Edizione [1st ed. 2025.] 1 online resource (XIX, 208 p. 10 illus., 5 illus. in color.) Descrizione fisica Studies in Smart Technologies, , 3004-989X Collana 006.3 Disciplina Soggetti Computational intelligence Quantum computers Mechanics, Applied Computational Intelligence Quantum Computing **Engineering Mechanics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Surfacing a W(L) Approach to Quantum Computation -- The Origins of a Fourfold Pattern -- Mapping the Fourfold Pattern to Quantum Space -- The Mathematics of Qualified Determinism -- Uncertainty Principle & Loss of Information -- Schrodinger's Equation & Evolution of Quantum Systems -- Reimagining Euler's Endless Wave -- Simulation of a Hypothetical Simple Atom -- Quantum Certainty -- Quaternary Interpretation of Quantum Dynamics (QIQD). Sommario/riassunto In this book, the author challenges conventional probabilistic interpretations of quantum mechanics by introducing a framework of "qualified determinism" that reexamines the underlying principles of quantum theory. Central to this vision is the Quaternary Interpretation of Quantum Dynamics (QIQD), which employs a quaternary fractal pattern to offer a fresh perspective on the quantum realm and its role in advanced computational processes. Spanning 24 chapters across six parts, the text bridges foundational theory with forward-looking applications, envisioning transformative breakthroughs in quantumbased energy detection systems, room-temperature superconductors, QIQD-inspired nano-devices, and beyond. By uniting rigorous

conceptual exploration with a bold technological outlook, this book

significantly broadens the horizons of quantum science and paves the way for a new era of quantum innovation.