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Introduction

2. A Free Relativistic Quantum Particle Revisited3. Uniqueness Theorem on a Decomposition of a Linear Operator and Some Consequences; 4. Existence Theorems; 4.1. Bounded Conserved Quantities; 4.2.

Unbounded Conserved Quantities; Acknowledgments; References;

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4. Approximate solutions; 5. Nonlocal Nonlinear Equation; 6.

Conclusion; Acknowledgments; References

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Operators; References; A Mathematical Treatment of Joint and Conditional Probability Masanori Asano, Masanori Ohya, Yoshiharu Tanaka, Ichiro Yamato, Irina Besieva and Andrei Khrennikov; 1.

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5. New views of probability both in classical and quantum systems

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Sommario/riassunto

This volume is based on the fifth international conference of quantumbio-informatics held at the QBI Center of Tokyo University of Science. This volume provides a platform to connect mathematics, physics, information and life sciences, and in particular, research for new paradigm for information science and life science on the basis of quantum theory. The following topics are discussed: Cryptographic algorithms; Quantum algorithm and computation; Quantum entanglement; Quantum entropy and information dynamics; Quantum dynamics and time operator; Stochastic dynamics and white noise analysis; Brain
