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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