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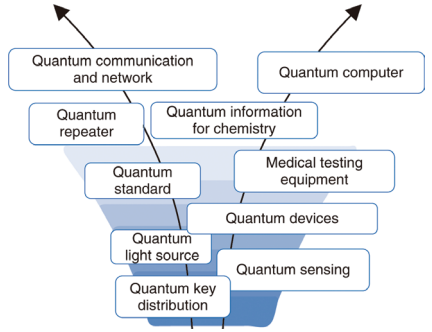
Feature Articles
A New Era in Quantum Information Processing Technologies

The Arrival of a New Era in Quantum Information Processing Technologies

▼Abstract

Research on quantum information processing has progressed astoundingly in the past several years. Concepts totally different from before such as adiabatic computation, quantum measurements, and topological states have been introduced, expanding the possibility of applications. This article introduces recent developments in quantum information processing and discusses NTT's research achievements as examples of the advances in this field.

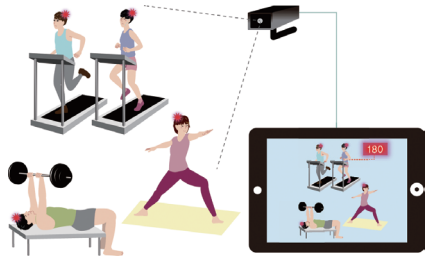


Regular Articles

Heart Rate Measurement with Video Camera Based on Visible Light Communication

▼Abstract

We have developed a system based on optical camera communication and an encoding method that can transfer the heart rates (HRs) of multiple people with high precision. The system can potentially measure and transfer the HRs of hundreds of people with their positional information. The unique system is composed of HR sensor units and a conventional camera. It is presented here along with the novel event timing encoding method.



Path Loss Model to Evaluate Interference for Small Cells between Different Floors

▼Abstract

NTT Access Network Service Systems Laboratories and NTT DOCOMO have been carrying out joint research and development (R&D) toward construction of the fifth-generation mobile communications system (5G). This article presents a path loss model developed as one of our R&D activities.