February 2026 Vol. 24 No. 2
NTT Technical Review 2 2026
https://www.ntt-review.jp/

Front-line Researchers

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▼Abstract

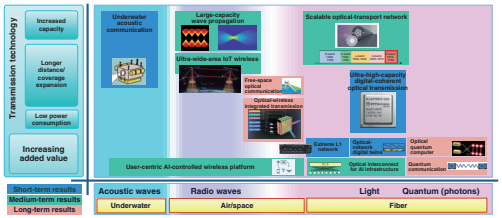
Top athletes are able to control their minds and bodies freely under extreme pressure in a way that delivers high performance. Scientifically explaining the underlying mechanisms in the brain and body that underpin this ability not only improves training methods used by athletes but also offers essential insights into how people in general can cope with adversity and improve their well-being. As an NTT Fellow at NTT Communication Science Laboratories and a leading researcher in cognitive neuroscience, Makio Kashino works closely with top athletes from a variety of sports while conducting original on-site measurements of tense and demanding competitions and has thus far uncovered a wealth of groundbreaking findings. In this interview, we asked him to describe his latest progress, share his thoughts on pioneering new research fields, and explain what he keeps in mind in his daily activities.

Feature Articles
High-value-added Transmission Technologies through the Convergence of Optical and Wireless Technologies for IOWN/6G

Innovation in Next-generation Network and Computing Infrastructure Driven by the Convergence of Optical and Wireless Technologies

▼Abstract

We at NTT Network Innovation Laboratories leverage world-leading communication technologies and networking technologies that maximize their potential to achieve dramatic improvements in communication performance and pioneer new application domains. We are advancing research and development aiming to create groundbreaking “world’s best” and “world’s first” achievements that transcend conventional wisdom and generate new value through societal implementation of those achievements. These technologies are discussed in this article.



Global Standardization Activities

From De Jure to De Facto: Reframing Standardization Strategies in an Implementation-driven Era

▼Abstract

Standardization in telecommunications is undergoing a profound transition from institution-driven *de jure* processes to implementation-led *de facto* models. Cloud-native architectures, the heightened impact of hyperscalers, and accelerating pace of technological evolution continue to restructure communication infrastructures. As we approach the 6G (sixth-generation mobile communications network) era, cross-industry collaboration and implementation capability will become indispensable strategic foundations. This article analyzes the driving forces behind this transformation and identifies emerging challenges for standardization.