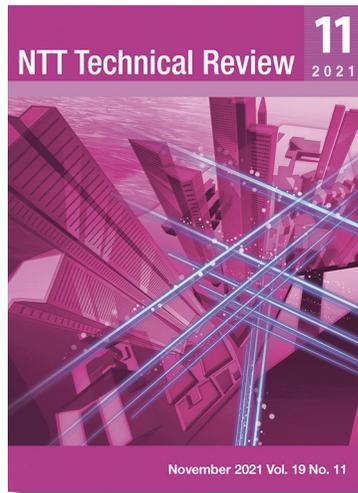


<https://www.ntt-review.jp/archive/2021/202111.html>



## View from the Top

- Hideaki Ozawa, Chief Operations Officer and Chief Technology Officer, NTT Research, Inc.

## Front-line Researchers

- Shiro Saito, Senior Distinguished Researcher, NTT Basic Research Laboratories

## Rising Researchers

- Ryo Ishii, Distinguished Researcher, NTT Human Informatics Laboratories

## Feature Articles

### NTT DOCOMO's Initiatives on 5G evolution & 6G

- Trends and Target Implementations for 5G evolution & 6G
- Research of Transparent RIS Technology toward 5G evolution & 6G
- Research on NTN Technology for 5G evolution & 6G
- Improving Communication Performance in High-mobility Environments by Millimeter-wave Base Station Cooperation for 5G evolution

## Regular Articles

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- Development of Beyond 100G Optical Cross Connect (B100G-OXC) System

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- Standardization Activities in the Asia-Pacific Region—New Management Structure Approved at the 33rd Asia-Pacific Telecommunity

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- Event Report: NTT Communication Science Laboratories Open House 2021

## View from the Top

### Hideaki Ozawa, Chief Operations Officer and Chief Technology Officer, NTT Research, Inc.

#### ▼Overview

NTT Research focuses on cutting-edge basic research in the fields of quantum computing, cryptography, blockchain, and medical/health informatics with partners around the world. Two years after its establishment, it has won several prestigious awards, including the International Association for Cryptologic Research (IACR) Test-of-Time Award, SPIE Maiman Laser Award, and IACR Crypto 2020 Best Paper Award. The institute's achievements also include solving the 20-year-old problem of program obfuscation. We interviewed Hideaki Ozawa, chief operations officer and chief technology officer of NTT Research, about the progress of research and the art of management.



## Front-line Researchers

### Shiro Saito, Senior Distinguished Researcher, NTT Basic Research Laboratories

#### ▼Overview

Quantum information technology is attracting attention as a source of technological innovation that will bring about major changes in the future economy and society. Countries around the world, including Japan, the United States, Europe, and China, are positioning research and development of quantum information technology as one of their national strategies. We interviewed Shiro Saito, a senior distinguished researcher at NTT Basic Research Laboratories and who is making a significant contribution to the development of quantum information technology, about the progress of his research and his attitude as a researcher.



## Feature Articles

### NTT DOCOMO's Initiatives on 5G evolution & 6G

### Trends and Target Implementations for 5G evolution & 6G

#### ▼Abstract

In Japan, commercial 5th-generation mobile communication systems (5G) services first became available in March 2020. Studies of the next generation of communication services (6G) and the telecommunication technology of the 2030s are now gathering momentum. This article provides a summary of the domestic and international trends and schedule prospects for 6G research and development, and the 5G evolution & 6G concept proposed in the DOCOMO 6G White Paper.

