External Awards

Network Systems Research Award
Winners: Hiroyuki Kitada, NTT Network Service Systems Laboratories; Daiki Fukudome, NHK Science & Technology Research Laboratories; Kento Noguchi, NTT Network Service Systems Laboratories; Takafumi Okuyama, NTT Network Service Systems Laboratories; Satoshi Nishimura, NHK Science & Technology Research Laboratories; Hisayuki Ohmata, NHK Science & Technology Research Laboratories
Date: February 29, 2024
Organization: The Institute of Electronics, Information and Communication Engineers (IEICE) Technical Committee on Network Systems

For "Implementation and Evaluation of Delay Adjuster for In-network Video Processing."
Published as: H. Kitada, D. Fukudome, K. Noguchi, T. Okuyama, S. Nishimura, and H. Ohmata, "Implementation and Evaluation of Delay Adjuster for In-network Video Processing," IEICE Technical Report, Vol. 123, No. 198, NS2023-106, pp. 172–176, 2023.

Fellow
Winner: Jun Terada, NTT Device Technology Laboratories
Date: March 5, 2024
Organization: IEICE

For research and development for practical application and advancement of high-speed optical access network systems.

JSAP Young Scientist Award
Winner: Megumi Kurosu, NTT Basic Research Laboratories
Date: March 22, 2024
Organization: The Japan Society of Applied Physics (JSAP)

For "Buckling-induced Quadratic Nonlinearity in Silicon Phonon Waveguide Structures."
Published as: M. Kurosu, D. Hatanaka, H. Okamoto, and H. Yamaguchi, "Buckling-induced Quadratic Nonlinearity in Silicon Phonon Waveguide Structures," Jpn. J. Appl. Phys., Vol. 61, SD1025, 2022.

Tingye Li Innovation Prize
Winner: Josuke Ozaki, NTT Innovative Devices Corporation
Date: March 26, 2024
Organization: Optical Fiber Communications Conference and Exhibition (OFC)

For "Net-1.8 Tbps/λ Transmission Enabled by C+L-band InP-based Coherent Driver Modulator."
Published as: J. Ozaki, "Net-1.8 Tbps/λ Transmission Enabled by C+L-band InP-based Coherent Driver Modulator," OFC 2024, San Diego, CA, USA, Mar. 2024.

Journal of Information Processing Outstanding Paper Award
Winners: Kazuki Nomoto, Waseda University; Takuya Watanabe, NTT Social Informatics Laboratories; Eitaro Shioji, NTT Social Informatics Laboratories; Mitsuaki Akiyama, NTT Social Informatics Laboratories; Tatsuya Mori, Waseda University
Date: March 29, 2024
Organization: Information Processing Society of Japan (IPSJ)

For "Understanding the Inconsistencies in the Permissions Mechanism of Web Browsers."
Published as: K. Nomoto, T. Watanabe, E. Shioji, M. Akiyama, and T. Mori, "Understanding the Inconsistencies in the Permissions Mechanism of Web Browsers," Journal of Information Processing, Vol. 31, 2023 (online).

Prime Minister's Award at Japan Industrial Technology Awards
Winners: Institute of Physical and Chemical Research, National Institute of Advanced Industrial Science and Technology, National Institute of Information and Communications Technology, Osaka University, Fujitsu Limited, and NTT Corporation
Date: April 3, 2024
Organization: The Nikkan Kogyo Shimbun

For the development of an ultra-high-performance computing platform using a 64-qubit superconducting quantum computer and provision of the platform on the cloud for corporate use.

Maejima Hisoka Encouragement Award
Winner: Kohki Shibahara, NTT Network Innovation Laboratories
Date: April 11, 2024
Organization: Tsushinbunka Association

For research on long-haul optical repeatered transmission systems using mode division multiplexing.

Papers Published in Technical Journals and Conference Proceedings

Unconditional Verification of Quantum Computation with Classical Light

Y. Takeuchi and A. Mizutani

arXiv:2403.14142, March 2024.

Verification of quantum computation is a task to efficiently check whether an output given from a quantum computer is correct. Existing verification protocols conducted between a quantum computer to be verified and a verifier necessitate quantum communication to unconditionally detect any malicious behavior of the quantum computer solving any promise problem in **BQP**. In this paper, we remove the necessity of the communication of qubits by proposing a "physically-classical" verification protocol in which the verifier just sends coherent light to the quantum computer.