

External Awards

Professional Group of Spintronics English Presentation Award

Winner: Shingo Kaneta-Takada, NTT Basic Research Laboratories
Date: December 20, 2021

Organization: The Japan Society of Applied Physics (JSAP) Professional Group of Spintronics

For “Quantum Limit Transport and Two-dimensional Weyl Fermions in Epitaxial Ferromagnetic Oxide SrRuO₃ Thin Films.”

Published as: S. Kaneta, Y. K. Wakabayashi, Y. Krockenberger, T. Nomura, Y. Kohama, H. Irie, K. Takiguchi, S. Ohya, M. Tanaka, Y. Taniyasu, and H. Yamamoto, “Quantum Limit Transport and Two-dimensional Weyl Fermions in Epitaxial Ferromagnetic Oxide SrRuO₃ Thin Films,” The 82nd JSAP Autumn Meeting, 13p-S302-10, Sept. 2021.

Young Researcher’s Award

Winner: Takeo Sasai, NTT Network Innovation Laboratories

Date: March 17, 2022

Organization: The Institute of Electronics, Information and Communication Engineers (IEICE)

For “Learning Nonlinear Schrödinger Equation: Loss Profile and Passband Narrowing Estimation.”

Published as: T. Sasai, M. Nakamura, S. Yamamoto, E. Yamazaki, H. Nishizawa, and Y. Kisaka, “Learning Nonlinear Schrödinger Equation: Loss Profile and Passband Narrowing Estimation,” Proc. of the

2021 IEICE General Conference, B-10-11, Mar. 2021.

Young Researcher’s Award

Winner: Takuma Tsurugaya, NTT Device Technology Laboratories

Date: March 17, 2022

Organization: IEICE

For “Reservoir Computing Using Semiconductor Optical Amplifiers on Si.”

Published as: T. Tsurugaya, T. Hiraki, M. Nakajima, T. Aihara, N. Diamantopoulos, T. Fujii, T. Segawa, and S. Matsuo, “Reservoir Computing Using Semiconductor Optical Amplifiers on Si,” Proc. of the 2021 IEICE Society Conference, C-3/4-23, Sept. 2021.

Young Scientist Presentation Award

Winner: Shingo Kaneta-Takada, NTT Basic Research Laboratories

Date: March 22, 2022

Organization: JSAP

For “Quantum Limit Transport and Two-dimensional Weyl Fermions in Epitaxial Ferromagnetic Oxide SrRuO₃ Thin Films.”

Published as: S. Kaneta, Y. K. Wakabayashi, Y. Krockenberger, T. Nomura, Y. Kohama, H. Irie, K. Takiguchi, S. Ohya, M. Tanaka, Y. Taniyasu, and H. Yamamoto, “Quantum Limit Transport and Two-dimensional Weyl Fermions in Epitaxial Ferromagnetic Oxide SrRuO₃ Thin Films,” The 82nd JSAP Autumn Meeting, 13p-S302-10, Sept. 2021.

Papers Published in Technical Journals and Conference Proceedings

“Remote High Five” Achieved by Vibrotactile Transmission: Case Studies for Family Communication of Athletes and Sports Viewing with Hearing-impaired Person

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Transactions of the Virtual Reality Society of Japan, Vol. 27, No. 1, pp. 2–5, Mar. 2022.

High-five is a physical communication in which two people tap their palms together at face level. Particularly in sports, high-five can share greetings, praise, and congratulations. However, recently physical contact, including high-five, has been limited due to

COVID-19 pandemic. In this paper, we explore a possibility of “remote high-five” communication system using vibrotactile transmission. This system can measure and present vibration in addition to audiovisual information, allowing users to remotely share their emotions by sending and receiving tapping vibration like giving a high five. We also discussed cases where this system was actually used in sports scenes: family communication of athletes and sports viewing with hearing-impaired person.