

Young Scientist Award of the Physical Society of Japan, 2026

Every year, the Physical Society of Japan presents its Young Scientist Awards to young researchers to recognize outstanding achievements in their early research careers. This year's winners were recently decided by the board of directors of the JPS based on the recommendations of the selection committees established in 19 divisions of the JPS. The maximum number of winners from each division has been determined based on the number of talks given at the Annual Meetings in the past 3 years. Each winner is to give an award lecture at the next Annual Meeting of the JPS, which is scheduled for March 2026. Here is the list of winners and their research topics.

Theoretical Particle Physics:

Syuhei Iguro(Nagoya University, KMI)

"For precise predictions of $b \rightarrow c$ semileptonic decays and exact sum rules based on heavy quark symmetry"

Naotaka Kubo(Kyoto University)

"Correspondence between 3d supersymmetric gauge theory and quantum curves."

Thanaporn Sichanugrist(The University of Tokyo)

"For proposing a novel method to search for dark matter using superconducting qubits"

Experimental Particle Physics:

Tomoya Iizawa(International Center for Elementary Particle Physics, the University of Tokyo)"Search for pair production of third-generation leptoquarks decaying into a bottom quark and a τ -lepton with the ATLAS detector"

Go Ichikawa(Institute of Materials Structure Science, High Energy Accelerator Research Organization)

"Measurement of neutron whispering gallery states using a pulsed neutron beam"

Masato Kimura(Institute of Particle and Nuclear Studies, High Energy Accelerator Research Organization)

"Search for dark matter annual modulation with DarkSide-50"

Theoretical Nuclear Physics:

Yoshimura Kenta(Department of Physics, School of Science, Institute of Science Tokyo)

"Construction of the fully self-consistent superfluid band theory and its application to neutron star crustal matter"

Experimental Nuclear Physics:

Rurie Mizuno(TRIUMF Centre for Molecular and Materials Science)

"Muon Capture Reactions: Probing Highly Excited Nuclear States and Particle Emission Mechanisms"

A.Sakaue(RIKEN Nishina Center for Accelerator-Based Science)

"Candidate for the Double Gamow-Teller Giant Resonance in ^{48}Ca Studied by the $(^{12}\text{C},^{12}\text{Be}(0+2))$ Reaction"

T. Okudaira(Graduate School of Science, Nagoya University)

"Enhancement of Time-Reversal Symmetry Violation in a p-Wave Neutron Resonance of $^{139}\text{La}(n,g) ^{140}$ "

Cosmic Ray and Astrophysics:

Shotaro Abe(Institute for Cosmic Ray Research, The University of Tokyo)

"TeV Gamma-Ray Emission across the Galactic Center Ridge with the CTA First Large-Sized Telescope"

Sotatsu Otabe(Department of Physics, The University of Tokyo)

"Photothermal and nonlinear optical effects in the signal amplification system for a gravitational wave detector"

Tatsuya Matsumoto(Department of Astronomy, The University of Tokyo)

"General constraints on outflow from cosmic explosions"

Beam Physics:

Yuki Abe(High Energy Accelerator Research Organization)

"Evaluation of wakefield deffects to nanometer small bea"

Wei, Tianyun(National Institutes for Quantum Science and Technology)

"Study on Laser-Driven Isotope Ion Acceleration and its Application"

Division 1 (Atomic and Molecular physics, Quantum Electronics, Radiation):

Takuma Okumura(Department of Chemistry, Tokyo Metropolitan University)

"High-precision X-ray spectroscopy of muonic atoms: from QED test to discovery of few-electron highly charged muonic atoms"

Shinichi Sunami(Department of Physics, University of Oxford)

"Experimental investigation of universal scaling dynamics and novel phases of matter in bilayer 2D Bose gases"

Akito Kawasaki(OptQC Corp.)

"Generation and characterization of gigahertz-bandwidth optical quantum states at telecommunication wavelength"

Division 2 (Plasma):

Hirohiko Tanaka(Graduate School of Engineering, Nagoya University)

"Study of convective cross-field transport enhanced under detached diverter conditions"

Hiroyuki Takahashi(Graduate School of Engineering, Tohoku University)

"Exploring detached plasma physics using electrodeless radiofrequency plasma"

Division 3 (Magnetism):

Shota Suetsugu(Department of Applied Physics, The University of Tokyo)

"Unveiling Topology and Probing Emergent Quantum Phenomena in Quantum Spin Liquids"

Kazuki Nakazawa(RIKEN Center for Quantum Computing (RQC))

"Microscopic theory of topological quantum transport phenomena induced by magnetic structures"

Division 4 (Semiconductors, Mesoscopic Systems and Quantum Transport):

Chaojing Lin(Department of Physics, School of Science, Institute of Science Tokyo)

"Functional quantum circuits using quantum Hall chiral plasmons"

Seishiro Ono(RIKEN Center for Interdisciplinary Theoretical and Mathematical Sciences)

"The classification of topological superconductors based on symmetry indicators"

Division 5 (Optical Properties of Condensed Matter):

Fumiya Sekiguchi(Cryogenic Research Center, The University of Tokyo)

"Nonlinear dynamics driven by intense laser fields shed new light on the fundamental properties and novel phenomena in solid-state materials"

Kazuaki Takasan(Graduate School of Science, The University of Tokyo)

"Theoretical exploration of dynamical controls of material properties with light fields and currents"

Division 6 (Metal Physics (Liquid Metals, Quasicrystals), Low Temperature Physics (Ultralow Temperatures, Superconductivity, Density Waves)):

Yuri Fukaya(Faculty of Environmental, Life, Natural Science and Technology, Okayama University)

"Theoretical Studies on Topological Superconductivity and Unconventional Magnet-Superconductor Junctions"

Farid Labib(Research Institute of Science and Technology, Tokyo University of Science)

"Experimental Studies on the Magnetism in Quasicrystals and Approximant Crystals"

Division 7 (Molecular Solids):

Shuichi Iwakiri(National Institute for Materials Science)

"Developing the new degrees of freedom and devices in graphene systems"

Mina Maruyama(Department of Physics, Institute of Pure and Applied Sciences, University of Tsukuba)

"Theoretical study of electric field effect on atomic layer materials"

Division 8 (Strongly Correlated Electron Systems):

Koudai Sugimoto(Department of Physics, Keio University)

"Theoretical studies on excitation spectra in strongly correlated electron systems via optical response"

Shuntaro Sumita(Department of Basic Science, The University of Tokyo)

"Theoretical proposal on exotic superconductivity coexisting/competing with multipole order"

Hideki Narita(Research Center for Materials Science, Nagoya University)

"Symmetry Control and Functionality Exploration in Artificial Superconductors"

Yang Zhuo(The Institute for Solid State Physics, The University of Tokyo)

"Hidden fine structure in the thermodynamic probing of Landau quantization at high magnetic field"

Division 9 (Surfaces & Interfaces, Crystal Growth):

Shunsuke Tanaka(National Institute of Advanced Industrial Science and Technology)

"Experimental study of vibrational dynamics at surfaces and interfaces using ultrashort pulse lasers"

Takayuki Nakamuro(Department of Chemistry, The University of Tokyo)

"Electron Microscopy-Based Quantitative Analysis of Crystal Growth at the Molecular Level"

Division 10 (Dielectrics, Ferroelectricity, Lattice Defects and Nanostructures, Phononic Properties, and X-ray and Particle Beams):

Takayuki Nagai(School of Engineering, the University of Tokyo)

"Development of ferroaxial and related physical properties by employing both experimental and computational approaches"

Division 11 (Fundamental Theory of Condensed Matter Physics, Statistical Mechanics, Fluid Dynamics, Applied Mathematics, Socio- and Econophysics) :

Yusuke Himeoka(School of Science, The University of Tokyo)

"Theoretical research towards elucidating the difference between life and non-life"

Hironobu Yoshida(RIKEN Pioneering Research Institute)

"Rigorous results of the ground state in SU(N) Hubbard model and steady states of open quantum many-body systems"

Division 12 (Soft Matter Physics, Chemical Physics,Biophysics):

Ryota Sakamoto(Institute of Physics, Academia Sinica)

"Uncovering the Physical Principles of Symmetry Breaking and Energy Conversion in Active Cytoskeletal Systems Through Artificial Cells"

Shinji Bono(College of Science and Engineering, Ritsumeikan University)

"Study on the structure and dynamics of soft matter droplets based on the surface design"

Yuto Hosaka(Max Planck Institute for Dynamics and Self-Organization)

"Theoretical study of nonequilibrium transport phenomena induced by broken symmetries"

Division 13 (Physics Education, History of Physics, Environmental Physics):

Hiroto Kono (National Museum of Nature and Science, Division of Science Research)

"Research on the Formation Process of Condensed Matter Physics"