



Yuuka Kanakubo

POSTDOCTORAL RESEARCHER/PROJECT RESEARCHER AT UNIVERSITY OF JYVÄSKYLÄ

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Work Experience

Department of Physics, University of Jyväskylä

Jyväskylä, Finland

Postdoctoral Researcher

Oct 2022 - present

- Research work in the Centre of Excellence in Quark Matter
- Principal Investigator: Kari Eskola

Japan Society for the Promotion of Science

Tokyo, Japan

Research Fellowship for Young Scientists (DC1)

Apr 2020 - Sep 2022

- Research protect: Study on transport properties of quark-gluon plasma with integrated dynamical framework (20J20401)
- Budget amount: 3,400,000 JPY

Faculty of Science and Technology, Sophia University

Tokyo, Japan

Research Assistant

Apr 2018 - Mar 2020

- Teaching assistant at Physics Exercise course
- Mentoring and supervising bachelor students at Hadron Physics group at Sophia University

Education

Sophia University

Tokyo, Japan

Doctor's degree in physics

Oct 2019 - Sep 2022

- Graduate School of Science and Technology
- Nuclear Physics, supervisor: Tetsufumi Hirano

Sophia University

Tokyo, Japan

Master's degree in physics

Apr 2018 - Sep 2019

- Early graduation by a half year
- Graduate School of Science and Technology
- Nuclear Physics, supervisor: Tetsufumi Hirano

Sophia University

Tokyo, Japan

Bachelor degree

Apr 2014 - Mar 2018

- Department of Materials and Life Sciences, Faculty of Science and Technology
- Finished systematic program of English for science

Achievements

Awards

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| 2023 | Young Scientist Award of the Physical Society of Japan , Awarded by Physical Society of Japan.
https://www.jps.or.jp/activities/awards/wakate.php |
| 2023 | Yagi Award , Awarded by RIKEN Interdisciplinary Theoretical and Mathematical Sciences Program.
https://ithems.riken.jp/en/about/yagi-award |
| 2022 | Best student presentation award , Awarded by Physical Society of Japan, Okayama, Japan |
| 2019 | Nuclear Physics A Elsevier Young Scientist Awards , The best theory talk at the 28th International Conference on Ultra-relativistic Nucleus-Nucleus Collisions (Quark Matter 2019), Awarded by Elsevier |
| 2019 | Global Award for Young Women Researchers , Awarded by Sophia University |

Publications Highlighted papers)

M. Kuha, J. Auvinen, K. J. Eskola, H. Hirvonen, Y. Kanakubo, H. Niemi, arXiv: 2406.17592, MC-EKRT: Monte-Carlo event generator with saturated minijet production for initializing 3+1 D fluid dynamics in high energy nuclear collisions

📍 **Y. Kanakubo, Y. Tachibana, T. Hirano, Phys. Rev. C 106 (2022) 5, 054908,** Nonequilibrium components in the region of very low transverse momentum in high-energy nuclear collisions

Selected as an Editor's Suggestion

📍 **Y. Kanakubo, Y. Tachibana, T. Hirano, Phys. Rev. C105 2, 024905 (2022),** Interplay between core and corona components in high-energy nuclear collisions

📍 **Y. Kanakubo, Y. Tachibana, T. Hirano, Phys. Rev. C101 no.2, 024912 (2020),** Unified description of hadron yield ratios from dynamical core-corona initialization

Y. Kanakubo, M. Okai, Y. Tachibana, T. Hirano, PTEP 2018, no. 12, 121D01 (2018), Enhancement of strange baryons in high-multiplicity proton-proton and proton-nucleus collisions

Outreach

Apr 2024 **Column: Introduction of Alumni, Sophia Sci-Tech No.35 (2024),** 📄 Sophia Sci-Tech back number (available in Japanese)

Mar 2024 **Column: Letters from abroad, Genshikaku Kenkyu vol. 68 no. 2 (2024),** 📄 Genshikaku-kenkyu, back number (available in Japanese)

Presentations

Invited talks

- Jul 2024 **ALICE week, Plenary: 6 AIM session (online),** CERN, Geneva, Switzerland
- Mar 2024 **Memorial talk on the 25th Young Scientist Award, The Physical Society of Japan the 79th Annual Meeting (online),**
- Oct 2023 **Colloquium “Unified description of relativistic nuclear collisions for different system sizes”,** Yukawa Institute for Theoretical Physics (YITP) at Kyoto University, Kyoto, Japan
- Sep 2023 **Strong-NA7 workshop & HFHF Theory Retreat,** Sicily, Italy
- Sep 2023 **The XXX-th International Conference on Ultra-relativistic Nucleus-Nucleus Collisions (Quark Matter 2023), Plenary talk,** Texas, US
- Jun 2023 **The VII-th International Conference on the Initial Stages of High-Energy Nuclear Collisions (Initial Stages 2023), Plenary talk,** Copenhagen, Denmark
- May 2023 **Workshop “Exploring Quark-Gluon Plasma through soft and hard probes”,** Belgrade, Serbia
- May 2023 **11th Edition of the Large Hadron Collider Physics Conference (LHCP 2023),** Belgrade, Serbia
- Apr 2023 **The 9th Asian Triangle Heavy-Ion Conference (ATHIC 2023), Plenary talk,** Hiroshima, Japan
- Feb 2023 **The 4th edition of International Workshop on QCD Challenges from pp to AA collisions,** Padova, Italy
- Feb 2023 **The 8th International Conference on Physics and Astrophysics of Quark Gluon Plasma (ICPAQGP-2023), Plenary talk,** Puri, India
- Feb 2023 **Emergent Topics in Relativistic Hydrodynamics, Chirality, Vorticity and Magnetic field,** Puri, India
- Nov 2022 **PHENomenal Workshop (ALICE experiment and Monte-Carlo event generator meeting),** CERN, Geneva, Switzerland
- Jan 2022 **RBRC Workshop: Physics Opportunities from the RHIC Isobar Run (online),** RIKEN Brookhaven National Laboratory, New York, US
- Sep 2021 **Workshop on the modeling of the QGP formation and QCD phase transition (online),** University of Tsukuba, Tsukuba, Japan
- Apr 2021 **The 9th Workshop of the American Physical Society Topical Group on Hadronic Physics (online),** Sacramento, US
- Feb 2021 **Opportunities of OO and pO collisions at the LHC (online),** (talk was given by collaborator due to sick), CERN, Geneva, Switzerland
- Nov 2019 **The 11th International Workshop on Multiple Partonic Interactions at the LHC,** Prague, Czech
- Feb 2019 **Nagoya mini workshop “Phenomenology and experiments at RHIC and the LHC”,** Nagoya University, Nagoya, Japan

Invited seminars

Jun 2024 **Hadron Physics Seminar**, The University of Tokyo, Tokyo, Japan (online)
 May 2023 **ISOQUANT special seminar**, Heidelberg University, Heidelberg, Germany
 May 2023 **Transport Meeting**, Goethe University Frankfurt, Frankfurt, Germany
 Dec 2022 **QCD seminar at QCD theory group**, University of Jyväskylä, Jyväskylä, Finland
 Oct 2022 **BES-Tea seminar (online)**, University of Washington, Seattle, US
 Sep 2022 **NBI Heavy-ion seminar**, Niels Bohr Institute, Copenhagen, Denmark
 Sep 2022 **CLASH seminar**, Lund University, Lund, Sweden
 Nov 2021 **NPA seminar at Yale Wright Laboratory (online)**, Yale University, New Haven, US
 Nov 2021 **Monash HEP webinar (online)**, Monash University, Melbourne, Australia
 Sep 2021 **RBRC seminar, RIKEN BNL (online)**, Brookhaven National Laboratory, New York, US
 Sep 2021 **PHENomenal: ALICE experiment and Monte-Carlo event generator meeting (online)**, CERN, Geneva, Switzerland
 Jan 2021 **High Energy Nuclear Physics in China (online)**, Central China Normal University, Wuhan, China
 Jan 2021 **CHEP seminars (online)**, McGill University, Montreal, Canada

Contributed talks

Sep 2022 **The Physical Society of Japan Autumn Meeting**, Okayama University of Science, Okayama, Japan
 Jun 2022 **The 20th International Conference on Strangeness in Quark Matter**, Busan, South Korea
 Mar 2022 **The Physical Society of Japan the 77th Annual Meeting (online)**, Okayama, Japan
 Nov 2021 **The 8th Asian Triangle Heavy-Ion Conference (ATHIC2021)**, Inha University, Incheon, South Korea
 Sep 2021 **The Physical Society of Japan Autumn Meeting (online)**,
 Dec 2019 **Zimányi School**, Wigner Research Center for Physics, Budapest, Hungary
 Nov 2019 **The 28th International Conference on Ultra-relativistic Nucleus-Nucleus Collisions (Quark Matter 2019)**, Wuhan, China
 Oct 2019 **New Development of Hydrodynamics and its applications in Heavy-ion Collisions**, Fudan University, Shanghai, China
 Sep 2019 **The Physical Society of Japan Autumn Meeting**, Yamagata University, Yamagata, Japan
 Jun 2019 **The 18th International Conference on Strangeness in Quark Matter (SQM 2019)**, Bari, Italy
 Jun 2019 **The Physical Society of Japan the 74th Annual Meeting**, Kyushu University, Fukuoka, Japan
 Jun 2019 **The 2nd JETSCAPE Winter School and Workshop**, Texas A&M University, Texas, US
 Oct 2018 **The 5th Joint Meeting of the Nuclear Physics Divisions of the APS and the JPS**, Hawaii, US
 Aug 2018 **The 64th Young Nuclear and Particle Physicist Group of Japan**, Chiba, Japan
 Jun 2018 **The 2nd International Workshop on Collectivity in Small Collision Systems**, Central China Normal University, Wuhan, China

Skills

Programming C++, Python (Matplotlib, Pandas, NumPy, Scikit-learn. etc.), FORTRAN
Miscellaneous Linux, Shell (Bash), \LaTeX , Microsoft Office, Github

Languages

English Professional Working Proficiency
Japanese Native
Russian Elementary Proficiency