Akihito Yoneyama (米山 瑛仁)

Research Fellow (DC2) at Japan Society for the Promotion of Science Institute of Physics, Graduate School of Arts and Sciences, the University of Tokyo Email: yoneyama.aki@gmail.com / yoneyama@gokutan.c.u-tokyo.ac.jp

Education

• Apr. 2020 -

Doctoral Course

Institute of Physics, Graduate School of Arts and Sciences, the University of Tokyo

Supervisor: Prof. Atsuo Kuniba

• Apr. 2018 - Mar. 2020

Master Course

Institute of Physics, Graduate School of Arts and Sciences, the University of Tokyo

Supervisor: Prof. Atsuo Kuniba

• Apr. 2014 - Mar. 2018

Department of Physics, the University of Tokyo

Work Experience

• Oct. 2020 -

Research Internship (part-time)

GCI Asset Management Kyoto Lab, Kyoto, Japan

• Aug. 2019 - Sep. 2019

Research Internship (full-time)

Preferred Networks, Inc., Tokyo, Japan

Academic Work Experience

• Apr. 2021 - Mar. 2023

Research Fellow (DC2) at Japan Society for the Promotion of Science

The University of Tokyo, Tokyo, Japan

• Sep. 2020 - Jan. 2021

Teaching assistant for the course *Electromagnetics B*

The University of Tokyo, Tokyo, Japan

Award

• Mar. 2020

Encouragement Award, Graduate School of Arts and Sciences, the University of Tokyo

Grant

• Apr. 2021 - Mar. 2023

Grant-in-Aid for Japan Society for the Promotion of Science Research Fellow (DC2)

Project/Area Number: 21J11742

Research Title: "Exploring the nature of promise problems that allows an exponential speedup in quantum computation"

Paper

- 4. A.Yoneyama, "Boundary from bulk integrability in three dimensions: 3D reflection maps from tetrahedron maps", to appear in Math. Phys. Anal. Geom., arXiv:2103.01105
- 3. A.Yoneyama, "Tetrahedron and 3D reflection equation from PBW bases of the nilpotent subalgebra of quantum superalgebras", Commun. Math. Phys. (2021), arXiv:2012.13385
- 2. A.Kuniba, M.Okado and A.Yoneyama, "Reflection K matrices associated with an Onsager coideal of $U_p(A_{n-1}^{(1)}), U_p(B_n^{(1)}), U_p(D_n^{(1)})$ and $U_p(D_{n+1}^{(2)})$ ", J. Phys. A: Math. Theor. **52** 375202 27pages (2019), arXiv:1904.05653
- 1. A.Kuniba, M.Okado and A.Yoneyama, "Matrix product solution to the reflection equation associated with a coideal subalgebra of $U_q(A_{n-1}^{(1)})$ ", Lett. Math. Phys. **109** 2049-2067 (2019), arXiv:1812.03767

Oral Presentation at International Conference

1. Mar. 5-7, 2019 @ the University of Tokyo (Invited)

"Matrix product solution to the reflection equation associated with a coideal subalgebra of $U_q(A_{n-1}^{(1)})$ ", Infinite Analysis 19 Quantum Symmetries and Integrable Systems

Invited Seminar

2. Jan. 14, 2021 @ the University of Tokyo (Online) (Host: Ralph Willox)

"Tetrahedron and 3D reflection equation from PBW bases of the nilpotent subalgebra of quantum superalgebras", Discrete Mathematical Modelling Seminar

1. Apr. 10, 2019 @ Rikkyo University (Host: Jimbo Michio) "Review about tetrahedron equation and technical details about [KOY18]"

Oral Presentation at Domestic Conference

- 2. Mar. 15-18, 2021 @ Keio University (Online)
 - "Tetrahedron and 3D reflection equation from PBW basis of the nilpotent subalgebra of quantum superalgebras", Mathematical Society of Japan Spring Meeting 2021
- 1. Feb. 10-14, 2021 @ Online

"Tetrahedron equation from PBW bases of the nilpotent subalgebra of quantum superalgebras", Mathsci Freshman Seminar 2021

Skill

Mathematica, Python, C/C++