

Akihito Yoneyama

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

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

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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

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”, *Math. Phys. Anal. Geom.* **24** 21 (2021), arXiv:2103.01105
3. A.Yoneyama, “Tetrahedron and 3D reflection equation from PBW bases of the nilpotent subalgebra of quantum superalgebras”, *Commun. Math. Phys.* **387** 481-550 (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

5. Oct. 18-22, 2021 @ Online
“3D reflection maps from tetrahedron maps”, Combinatorial Representation Theory and Connections with Related Fields (RIMS Workshop)
4. Sep. 14-17, 2021 @ Chiba University (Online)
“3D reflection maps from tetrahedron maps”, Mathematical Society of Japan Autumn Meeting

2021

3. Jun. 25-28, 2021 @ Online

“3D reflection maps from tetrahedron maps”, Algebraic Lie Theory and Representation Theory

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

Python, C/C++, Mathematica