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1 Background

1.1 Education

PhD in Theoretical Physics 2016-2021, The University of Alabama - USA, Tuscaloosa

Study Abroad in JYPE 2014-2015, Tohoku University - Japan, Sendai

BS in Engineering Physics 2012-2016, The Colorado School of Mines - USA, Golden

1.2 Appointments/Employments

Assistant Professor April 2025 - Present

National Institute of Technology Oyama College (Department of General Education)

JSPS Postdoc August 2023 - August 2024

Yamagata University

Technical Consultant January 2023 - May 2023

Quantum Data Center

Technical Consultant August 2022 - May 2023

quantumz.io

Postdoc January 2022 - June 2023

Henan University

Contract Tutor 2017 - 2021

Appliedtutoring.com

PhD Student 2016 - 2021

The University of Alabama

Graduate Teaching Assistant 2016 - 2021

The University of Alabama

2 Research

2.1 Publications (Including Preprints)

2026 - Holographic QCD Matter: Chiral Soliton Lattices in Strong Magnetic Field

[10.1007/JHEP02\(2026\)240](#) - [arXiv:2507.16897](#)

2024 - Holographic Global Vortices with Novel Boundary Conditions

[arXiv:2404.03212](#)

2024 - Relativistic hydrodynamics under rotation: Prospects and limitations from a holographic perspective

[10.1016/j.ppnp.2024.104135](#) - [arXiv:2308.11686](#)

2023 - Modes of the Sakai-Sugimoto soliton

[10.1088/1751-8121/ad742c](#) - [arXiv:2306.00677](#)

2023 - Convergence of hydrodynamics in rapidly spinning strongly coupled plasma

[10.1103/PhysRevD.108.046014](#) - [arXiv:2112.10781](#)

2022 - Chaos and pole-skipping in a simply spinning plasma

[10.1007/JHEP02\(2023\)253](#) - [arXiv:2211.00016](#)

2020 - Hydrodynamics of simply spinning black holes & hydrodynamics for spinning quantum fluids

[10.1007/JHEP12\(2020\)112](#) - [arXiv:2007.04345](#)

2020 - Resonating AdS soliton

[10.1007/JHEP08\(2020\)136](#) - [arXiv:2006.12783](#)

2019 - Dispersion relations in non-relativistic two-dimensional materials from quasinormal modes in H \ddot{o} rava Gravity

[10.1007/JHEP10\(2019\)087](#) - [arXiv:1905.11993](#)

2.2 Given Talks

2025 CDIO Asian Regional Meeting

August, 2025

Politeknik Negeri Batam

Strings and Fields

July, 2025

Kyoto University

Solitons at Work (INVITED)

November, 2024

Online

Research Seminar

May, 2024

Tokyo Institute of Technology

Research Seminar

May, 2024

Keio University

Research Seminar

May, 2024

Chuo University

Rising Researchers Seminar (INVITED)

April, 2024

Online

International Workshop on Noncommutative Integrable Systems

March, 2024

Online

Holotube (INVITED)

December, 2023

Online

Online Workshop on Topological Solitons

September, 2023

Online

Research Seminar

February, 2020

Tokyo University

Research Seminar

February, 2020

Ochanomizu University

Research Seminar

February, 2020

Chuo University

Research Seminar

July, 2019

Würzburg University

Frankfurt Institute for Advanced Studies

July, 2019

Würzburg University

3rd Karl Schwarzschild Conference

July, 2017

Würzburg University

3 Teaching Experience

Environmental Science - Spring 2025 - Present

National Institute of Technology Oyama College - *once per semester lecture on environmental science in English*

Special Lectures on Special Relativity - Spring 2024

Yamagata University - *informal lectures taught in Japanese*

PH 255: Modern Physics Laboratory - Spring 2021

The University of Alabama - *as a graduate teaching assistant*

PH 255: Modern Physics Laboratory - Fall 2020

The University of Alabama - *as a graduate teaching assistant*

PH 102: General Physics II - Summer 2020

The University of Alabama - *two classes were taught*
PH 125: Honors General Physics with Calculus I - Fall 2019
The University of Alabama - *as a graduate teaching assistant*
PH 255: Modern Physics Laboratory - Fall 2018
The University of Alabama - *as a graduate teaching assistant*
Tutoring Session (College Math and Physics) - Fall 2018 - Spring 2021
Applied Tutoring - *taught privately for around 5hrs a week at the University of Alabama*
PH 125: Honors General Physics with Calculus I - Fall 2016
The University of Alabama - *as a graduate teaching assistant*
PH 105: General Physics with Calculus I - Fall 2016 - Spring 2021
The University of Alabama - *as a graduate teaching assistant for 0-2 classes per year*
PH 106: General Physics with Calculus II - Fall 2016 - Spring 2021
The University of Alabama - *as a graduate teaching assistant for 0-2 classes per year*

4 Recognition and Honors

4.1 Awards

Japanese-Language Proficiency Test (JLPT) N2 Level Certification	2023
Japan Society for the Promotion of Science Fellowship <i>Yamagata University</i>	2023
Outstanding Research by a Master's Student <i>The University of Alabama</i>	2020
JASSO Scholarship <i>Tohoku University</i>	2014
Private Scholarship <i>Pagosa Springs High School</i>	2008

4.2 Memberships

Global Center Member <i>NIT Oyama College Golbal Center</i>	April 2025 - present
President <i>Physics and Astronomy Graduate Physics Association</i> <i>of the University of Alabama</i>	2017 - 2021
Secretary <i>Japanese American Cultural Exchange Club of the</i> <i>University of Alabama</i>	2017 - 2020