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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 2026 - Present  
 National Institute of Technology Oyama College (Department of Electrical and Electronic Engineering)  
**Assistant Professor** April 2025 - April 2026  
 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* - **Homogeneous anisotropic black branes with bianchi  $VI_h$  symmetry**  
[10.1140/epjc/s10052-026-15741-w](https://arxiv.org/abs/2603.07993) - arXiv:2603.07993  
*2026* - **Holographic QCD Matter: Chiral Soliton Lattices in Strong Magnetic Field**  
[10.1007/JHEP02\(2026\)240](https://arxiv.org/abs/2507.16897) - 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.pnpnp.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 Hōrava Gravity**

10.1007/JHEP10(2019)087 - arXiv:1905.11993

## 2.2 Given Talks

<b>2025 CDIO Asian Regional Meeting</b> <i>Politeknik Negeri Batam</i>	August, 2025
<b>Strings and Fields</b> <i>Kyoto University</i>	July, 2025
<b>Solitons at Work (INVITED)</b> <i>Online</i>	November, 2024
<b>Research Seminar</b> <i>Tokyo Institute of Technology</i>	May, 2024
<b>Research Seminar</b> <i>Keio University</i>	May, 2024
<b>Research Seminar</b> <i>Chuo University</i>	May, 2024
<b>Rising Researchers Seminar (INVITED)</b> <i>Online</i>	April, 2024
<b>International Workshop on Noncommutative Integrable Systems</b> <i>Online</i>	March, 2024
<b>Holotube (INVITED)</b> <i>Online</i>	December, 2023
<b>Online Workshop on Topological Solitons</b> <i>Online</i>	September, 2023
<b>Research Seminar</b> <i>Tokyo University</i>	February, 2020
<b>Research Seminar</b> <i>Ochanomizu University</i>	February, 2020
<b>Research Seminar</b> <i>Chuo University</i>	February, 2020
<b>Research Seminar</b> <i>Würzburg University</i>	July, 2019
<b>Frankfurt Institute for Advanced Studies</b> <i>Würzburg University</i>	July, 2019
<b>3rd Karl Schwarzschild Conference</b> <i>Würzburg University</i>	July, 2017

## 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

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

### 4.2 Memberships

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