Website: https://markuspad.com/ GitHub: inokawazu
Email: markus.a.amano[at]gmail.com iNSPIREHEP

Nationality: USA

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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 2025 - Present

National Institute of Technology Oyama College

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** 2022 - 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)

 $\it 2024$  - Holographic Global Vortices with Novel Boundary Conditions  $\rm arXiv: 2404.03212$ 

 $\it 2024$  - 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  $10.1007/\mathrm{JHEP12}(2020)112$  -  $\mathrm{arXiv:}2007.04345$ 

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 Hŏrava Gravity

10.1007/JHEP10(2019)087 - arXiv:1905.11993

#### 2.2 Given Talks

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 March, 2024

Integrable Systems

Online

Holotube (INVITED) December, 2023

On line

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

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	2023	
Level Certification		
Japan Society for the Promotion of Science	2023	
Fellowship		
Yamagata University		
Outstanding Research by a Master's Student	2020	
The University of Alabama		
JASSO Scholarship	2014	
Tohoku University		
Private Scholarship	2008	
Pagosa Springs High School		

## 4.2 Memberships

President	2017 - 2021
Physics and Astronomy Graduate Physics Association	
of the University of Alabama	
Secretary	2017 - 2020
Japanese American Cultural Exchange Club of the	
University of Alabama	