

Website: <https://markuspad.com/>
Email: markus.a.amano[at]gmail.com
Nationality: USA

GitHub: [inokawazu](#)
[iNSPIREHEP](#)

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

Appointments/Employments

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

Publications (Including Preprints)

2024 - **Holographic Global Vortices with Novel Boundary Conditions**
[arXiv:2404.03212](#)
2023 - **Relativistic Hydrodynamics under Rotation: Prospects & Limitations from a Holographic Perspective**
[arXiv:2308.11686](#)
2023 - **Modes of the Sakai-Sugimoto soliton**
[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](#)

Given Talks

Research Seminar <i>Tokyo Institute of Technology</i>	May, 2024
Research Seminar <i>Keio University</i>	May, 2024
Research Seminar <i>Chuo University</i>	May, 2024
Rising Researchers Seminar (Invited) <i>Online</i>	April, 2024
International Workshop on Noncommutative Integrable Systems <i>Online</i>	March, 2024
Holotube (Invited) <i>Online</i>	December, 2023
Online workshop on topological solitons <i>Online</i>	September, 2023
Research Seminar <i>Tokyo University</i>	February, 2020
Research Seminar <i>Ochanomizu University</i>	February, 2020
Research Seminar <i>Chuo University</i>	February, 2020
Research Seminar <i>Würzburg University</i>	July, 2019
Frankfurt Institute for Advanced Studies <i>Würzburg University</i>	July, 2019
3rd Karl Schwarzschild Conference <i>Würzburg University</i>	July, 2017

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

Memberships

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

References

Minoru Eto (Yamagata University, Professor) *was my Postdoc Advisor*
meto@sci.kj.yamagata-u.ac.jp
Sven Bjarke Gudnason (Henan University, Distinguished Professor) *was my Postdoc Advisor*
gudnason@henu.edu.cn
Matthias Kaminski (The University of Alabama, Associate Professor) *was my PhD Advisor*

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 106: General Physics with Calculus II - Summer 2020

The University of Alabama - *two classes where 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 - 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*