

Department of Physics

Diploma Ceremony

Sunday, May 14, 2023
Love Auditorium & Hall of Science



PROGRAM

12:00 Lunch

1:00 Welcome Address

Professor Steffen A. Bass, Chair
Department of Physics

1:15 Presentation of Diplomas for Degrees in Physics

Professor John Mercer
Associate Director
Undergraduate Studies
Department of Physics

Professor Ayana Arce
Director
Undergraduate Studies
Department of Physics

Professor Mark Kruse
Director
Graduate Studies
Department of Physics

FIRST MAJORS IN BIOPHYSICS

Alex Romine
Ray Zhang

SECOND MAJOR IN BIOPHYSICS

Eddie Kong

FIRST MAJORS IN PHYSICS

Andrew Forrester
Pranav Charvu❖
Pavani Jairam❖ ΣΠΣ
William Klein ΣΠΣ
Matthew Wai-Lung Mammen
Zachary Benjamin McCarthy
Ricardo Adrián Méndez❖❖
Bridget Catherine Sidwell
Michael Topper
Vatsal Varma
Brandon Matthew Weiss❖

SECOND MAJORS IN PHYSICS

Henry Burns
Riley Fisher
Erin Liu
Joshua Aaron Rabinowitz

MINORS IN PHYSICS

Peter Alfonsi
Jiqing Fan
Easop Lee
Jun Heng Lor
Aditya Paul
Michaela Sylvia

GRADUATION WITH DISTINCTION IN PHYSICS

Pranav Charvu: Graduation with Distinction (Advisor: Daniel Scolnic) - *ATLAS Transient Survey Light Curve Release and Analysis* ❖

Pavani Jairam: Graduation with Distinction (Advisor: Kate Scholberg) - *Using SNEWPY to Analyze Neutrinos from the Black Hole Formation Stage* ❖

Ricardo Adrián Méndez: Graduation with High Distinction (Advisor: Mark Kruse) - *Searches for Top-philic Resonances at ATLAS*❖❖

Brandon Matthew Weiss: Graduation with Distinction (Advisor: Kate Scholberg) - *Supernova Neutrino Directionality* ❖

- ❖ Graduation with Distinction – Requires a significant thesis with originality and thesis defense.
- ❖❖ Graduation with High Distinction – Highest Honor in Physics. Requires a thesis comparable to papers in peer reviewed journals and unanimous support from thesis committee members.

ΣΠΣ Physics Honor Society

MASTER OF ARTS IN PHYSICS

Charles Prior

DOCTOR OF PHILOSOPHY IN PHYSICS

Summer 2022

Dr. Wenkai Fan
Dr. Hanqing Liu
Dr. Collin Malone

Fall 2022

Dr. Peibo An
Dr. Tianyu Dai
Dr. Zhubing Jia
Dr. Achint Kumar
Dr. Qiang Miao
Dr. Lingfei Zhao

Spring 2023

Dr. Erin Conley
Dr. Xiaoqing Li
Dr. Emily Phillips Longley
Dr. Brodie Popovic
Dr. James Wheeler

DOCTOR OF PHILOSOPHY DISSERTATION IN PHYSICS

Peibo An: [Advisor: Phillip Barbeau] – *Studies of the Electron Neutrino Charged-current Interaction on 127I*

Erin Conley: [Advisor: Kate Scholberg] – *The Low-Energy Charged-Current Electron Neutrino Cross Section on Argon at the Spallation Neutron Source*

Tianyu Dai: [Advisor: Steffen Bass] – *Light Parton Energy Loss in a Hard-soft Factorized Approach*

Wenkai Fan: [Advisor: Steffen Bass] – *Multi-Stage Heavy Quark Transport in Ultra-Relativistic Heavy-Ion Collisions*

Zhubing Jia: [Advisor: Kenneth Ray Brown] – *Quantum Information Processing with Spin and Motional States of Trapped Ions*

Achint Kumar: [Advisor: Henry Greenside] – *Joint Data Modelling with Variational Autoencoders*

Xiaoqing Li: [Advisor: Warren Warren] – *New Approaches to Boost SABRE Signals*

Hanqing Liu: [Advisor: Shailesh Chandrasekharan] – *Quantum Critical Phenomena of Relativistic Fermions in 1+1d and 2+1d*

Emily Phillips Longley: [Advisor: Chris Walter] – *Weak Lensing Cosmology Analysis with Stage-III Cosmic Shear Surveys*

Collin Malone: [Advisor: Calvin Howell] – *Photodisintegration of ^3H and Supporting Experiments*

Qiang Miao: [Advisor: Thomas Barthel] – *Eigenstate Entanglement Scaling and Quantum Simulation of Many-body Systems by Entanglement Renormalization*

Brodie Popovic: [Advisor: Daniel Scolnic] – *Cosmology Using Photometric Samples of Type 1A Supernovae: The First Joint Photometric Light Curve Analysis*

James Wheeler: [Advisor: Hubert Bray] – *Investigations on Black Holes, Cosmic Censorship, and Scalar Field Dark Matter Cosmology*

Lingfei Zhao: [Advisor: Gleb Finkelstein] – *Andreev Conversion in the Quantum Hall Regime*

