

# Olexiy Dvornikov

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## EDUCATION

### U.H. MANOA

PH.D. PHYSICS

2017 - Present | GPA: 3.9

### SAN DIEGO STATE UNIVERSITY

M.S. PHYSICS

2015 - 2017 | GPA: 3.9

### UC SAN DIEGO

B.S. ASTROPHYSICS

2010 - 2014 | GPA: 3.6

Provost Honors (8 Quarters)

## SKILLS

### PROGRAMMING

C | ROOT | Python | Mathematica |  $\text{\LaTeX}$

### LANGUAGES

Ukrainian | Russian | German | French

## RESEARCH

### NEUTRINOS & DARK MATTER

ADVISORS | JELENA MARICIC & JASON KUMAR

May 2018 - Present | U.H. Manoa

Calibrating DUNE's calorimetric response to astrophysical neutrinos.

Making forecasts for DUNE's sensitivity to dark matter.

### COSMOLOGY ADVISOR | CHAD KISHIMOTO

Dec 2015 - May 2017 | San Diego State University

Modeled neutrinos produced via a lepton asymmetry in the early universe.

### LATTICE THEORY ADVISOR | JEFF GREENSITE

Nov 2014 - Jan 2015 | San Francisco State University

Performed Monte Carlo computations on a lattice.

### HIGH ENERGY PHYSICS ADVISOR | AVI YAGIL

July 2013 - Jan 2014 | UC San Diego

Studied simulations of top quark decays.

## TEACHING

### U.H. MANOA | LECTURER

August 2021 - Dec 2021

PHYS272: General Physics II

Lectured 60 students. Created/graded the assignments & exams.

### U.H. MANOA | GRADER & SUBSTITUTE LECTURER

August 2017 - Fall 2020

PHYS272: General Physics II | Prof: Danny Marfatia | Role: Grader

PHYS274: General Physics III | Prof: Jelena Maricic | Role: Sub

PHYS 480 & 481: QM I & II | Prof: Sven Vahsen | Role: Grader & Sub

### U.H. MANOA | TEACHING ASSISTANT

August 2017 - May 2018 | Supervisor: Philip von Doetinchem

Taught 3 labs of PHYS151L/170L: Mechanics

Set up lab equipment and trained other TAs

### U.H. MANOA LEARNING EMPORIUM | TUTOR

August 2017 - May 2018 | Supervisor: Michael Nassir

Tutored college physics and math (lab and lecture)

### THE TUTORING CENTER, AINA HAINA | TUTOR

June 2017 - September 2017 | Director: Jules Guerrero

Tutored kids (K-12) math, reading, writing

### SAN DIEGO STATE UNIVERSITY | LEAD TEACHING ASSISTANT

August 2015 - May 2017 | Supervisor: Murray Finegold

Taught 9 labs of PHYS182A/195L: Mechanics

Set up lab equipment and trained other TAs

### SAN FRANCISCO STATE UNIVERSITY | TEACHING ASSISTANT

August 2014 - May 2015 | Supervisor: Ron Marzke

Taught 4 labs of PHYS122: E & M, Optics, Atoms