
Dr. Alexandria ‘Lexi’ Costantino

Central Oregon Community College
Middleton Science Center Room 279
Bend, OR, 97703

lcostantino@cocc.edu
951-474-7665

Employment	Central Oregon Community College Assistant Professor I of Physics and Engineering, 2023 - <i>present</i>
Education	University of California, Riverside Ph.D., Physics, Fall 2022 Dissertation: AdS Opacity, Soft Bombs, and Exotic Forces Advisor: Flip Tanedo Major GPA: 4.00 University of California, Riverside M.S., Physics, Fall 2018. Major GPA: 4.00 University of South Florida B.S., Physics, Spring 2017. Major GPA: 4.00 University of South Florida B.A., Chemistry, Spring 2017. Major GPA: 3.85
Fellowships and Awards	Outstanding Teaching Assistant Award Awarded 2022 for the 2021-2022 academic year Provost’s Scholars for the Advancement of Physical Sciences UCR Scholarship, 2021 Graduate Diversity, Equity, & Inclusion Award UCR Scholarship, 2021 National Science Foundation Graduate Research Fellowship Awarded 2019 - 2022 Benjamin C. Shen Award Department award for “outstanding junior graduate student researcher”, 2019 Graduate Research Mentorship Program Fellowship UCR Fellowship, 2019 - 2020

Outstanding Teaching Assistant Award

Awarded 2019 for the 2018-2019 academic year

Benjamin C. Shen Award

Department award for “outstanding first year graduate student”, 2018

Eugene Cota Robles Award

UCR Fellowship, 2017 - 2021

Jay Worrell Memorial Scholarship

Department inorganic chemistry award, 2016

USF Director’s Award

USF Scholarship, 2013 - 2017

Courses Taught**Central Oregon Community College**

Engineering 103: Intro to Engineering III, Spring 2024

Physics 203: General Physics III for the Life Sciences, Spring 2024

General Science 104: Conceptual Physics, Winter 2024

Physics 202: General Physics II for the Life Sciences, Winter 2024

Physics 201: General Physics I for the Life Sciences, Fall 2023

University of California, Riverside

Teaching Assistant, Physics 156C: Quantum Mechanics III, Spring 2022

Teaching Assistant, Physics 156A: Quantum Mechanics I, Fall 2021

Teaching Assistant, Physics 002LA: General Physics I Lab for the Life Sciences, Spring 2019

Teaching Assistant, Physics 040LA: General Physics I Lab for the Physical Sciences, Winter 2019

Teaching Assistant, Physics 040LA: General Physics I Lab for the Physical Sciences, Fall 2018

Teaching Assistant, Physics 002A: General Physics I for the Life Sciences, Spring 2018

University of South Florida

Teaching Assistant, Physics 3323: Electricity and Magnetism I, Spring 2017

Teaching Assistant, Physics 2048: General Physics I for the Physical Sciences, Fall 2016

Pedagogy Training**University Teaching Certificate** (*Completed June 2022*)

20-week course on pedagogy offered by the graduate division at UC Riverside.

More details at gsrc.ucr.edu/certificate-programs/university-teaching-certificate

The Art and Science of Active Learning (*Completed May 2022*)

Certificate granted upon completion of 6-week seminar series on active learning

More details at teaching.ucr.edu/faculty-development/TASAL

**Outreach and
DEI Work**

UCR Physics Organization for Womxn and the Under-Represented

Gave invited talks on behalf of POWUR for Phys401: Professional

Development in Physics & Astronomy, Winter 2021 & Winter 2020

Helped apply for a **2019 APS Women in Physics group grant** (awarded)

Cofounder, 2018

Vice President, 2018

Member, 2018 - 2022

More info can be found at sites.google.com/view/ucr-powur/

Riverside County Science and Engineering Fair, 2021

Judge for Tiers 3 and 4

UCR Summer Physics Teaching Academy, 2019

Organizer and participant of the Women-in-Physics Book Club event

Received a **2019 APS Women in Physics group grant** for the book club

Panelist on the diversity and inclusion panel

Panelist on the college prep student panel

United Way GEMS - UCR day 2019

Volunteer: designed lab activity for several groups of middle-school girls

USF Physics Organization for Women and the Under-Represented

Cofounder, 2017

Vice President, 2017

Member, 2017

**Research
Publications**

“AdS Opacity, Soft Bombs, and Exotic Forces”,

A. Costantino, *Ph.D. dissertation*, escholarship.org/uc/item/8nf204v7

“Opacity from Loops in AdS”,

A. Costantino, S. Fichet, *J. High Energ. Phys.* 2021, 89 (2021)

“The Neutrino Casimir Force”,

A. Costantino, S. Fichet, *J. High Energ. Phys.* 2020, 122 (2020)

“Effective Field Theory in AdS: Continuum Regime, Soft Bombs, and IR
Emergence”, A. Costantino, S. Fichet, P. Tanedo,

Phys. Rev. D. Vol 102, Issue 11 (2020)

“Exotic Spin-Dependent Forces from a Hidden Sector”, A. Costantino,

S. Fichet, P. Tanedo, *J. High Energ. Phys.* 2020, 148 (2020)

Talks Given **Ph.D. Defense, Fall 2022**
AdS Opacity, Soft Bombs, and Exotic Forces

BSM PANDEMIC Delta Series, Fall 2021
Opacity and other Quirks of Effective Field Theory in AdS
Talk can be found at indico.cern.ch/event/1076429/

UC Davis Joint Theory Seminar, Spring 2021
The Breakdown of the Narrow Width Approximation and other Aspects of
Timelike Processes in AdS
Talk can be found at youtu.be/3X0fopPhW-U

UC Riverside Particle Theory Seminar, Winter 2021
Opacity from Loops in AdS
Talk can be found at youtu.be/RKcOeTXLypU

Oral Qualifying Exam for Ph.D. Candidacy, 2020
Warped Dark Sectors

TASI 2020 Alumni Event, 2020
IR Emergence in Warped Extra Dimensions

UCR Particle Theory Student Journal Club, 2019
Spin Dependent Quantum Forces from a Hidden Sector

UCR Grad Slam, 2019
Dark Matter Time Machine
Preliminary round III - advanced by audience's choice and judge's choice
Semifinal round B - advanced by audience's choice and judge's choice
Finals - Honorable Mention

SoCal Beyond the Standard Model - Student Pop Talks, 2019
Dark Mediators, First Light

UCR Particle Theory Student Journal Club, 2018
The ANITA Anomaly

UCR CNAS Science Slam, 2018
Putting Dark Matter in the Spotlight
2nd place overall

UCR - UCI Particle Theory Student Meetup, 2018
Dark Matter at Cosmic Dawn

Workshops
Attended

SSI 2021 Summer School
SLAC Summer Institute 2021, virtual

TASI 2020 Summer School
Theoretical Advanced Study Institute in Elementary Particle Physics, virtual

SoCal Beyond the Standard Model 2019
The third of an annual set of one-day meetings for SoCal particle theorists

Let's Talk Science, 2019
UCR science communication workshop

KITP Follow-On Program, 2019
Attended with collaborators Flip Tanedo, Sarah Schon and Katie Mack

SoCal Beyond the Standard Model 2018 (held in 2019)
The second of an annual set of one-day meetings for SoCal particle theorists