

Curriculum Vitae (C.V.) – STEM Research Emphasis

Section headers make it easier to find specific types of information. **Dates** are usually on the right.

For a **TEACHING EMPHASIS C.V.**, list teaching related information earlier in the C.V.

Graemoer Dakshin

(314) 456-1908

gdakshin@arizona.edu

<http://www.graemoerdakshin.com>

<https://github.com/graeoerdakshin>

Use **standard fonts** and do **NOT** use **colored fonts** as they may not show up on all computers. **No columns. No tables.** Use **standard margins.**

Include **digital content** but only if it's **professional and up to date.**

EDUCATION

University of Arizona
Ph.D. in Physics

Expected May 2020

- Dissertation: The light-nuclei spectra of chiral interactions
- Advisor: Dr. Maria Armanda

California Institute of Technology
B.S. in Physics
Minor in Mathematics

2015

- Thesis: Condensed Matter Physics
- Advisor: Dr. Jason Argyle

Education is listed at the top and posted in reverse chronological order with the university name first (your academic lineage) and the dates on the right side (your timeline).

RESEARCH INTERESTS

My research interests lie in particle and nuclear physics with an emphasis on applying quantum field theory and string theory methods to study hadronic physics.

Research Interests or a Summary may provide a broader perspective than your current publications.

RESEARCH EXPERIENCE

University of Arizona, Department of Physics

Research Assistant to Dr. Maria Armanda

2017 - 2020

Research Project: The light-nuclei spectra of chiral interactions

- Developed prediction using Monte Carlo methods to evaluate relevant matrix elements in Python
- Derived wave functions to describe nuclei and then evaluated the charge and current operators in momentum space with Monte Carlo methods in Python
- Coordinated scientific collaborations between University of Arizona and Columbia University by creating and managing work timelines, facilitating frequent communications, and establishing timely workshops

Research Experiences are listed in reverse chronological order. The research project title and advisor are included. To highlight your skills, use an action verb + the purpose + the result. Include any mentoring, collaborations, or project management skills. Start with the big/ broad picture bullets.

Footer should include your name and the page number.

Research Assistant to Dr. Maria Amanda 2015-2017

Research Project: Atomic Trap Trace Analysis (ATTA)

- Developed Atomic Trap Trace Analysis, a laser based counting method consisting of lasers and vacuums to analyze argon and krypton samples
- Analyzed groundwater at six sites using ATTA method to date sites
- Coordinated and mentored 3 undergraduate researchers, created work schedules, held weekly progress meetings, trained students on techniques, data analysis, and presentation skills

California Institute of Technology

2013-2015

Thesis Advisor: Dr. Jason Argyle

Senior Thesis: Condensed Matter Physics – Cathode Side of Lithium Batteries

PROFESSIONAL EXPERIENCE

Reviewer for *Physical Review Letters*

2018 - present

Summer Internship U.S. Environmental Protection Agency, Office of Air and Radiation, Washington, DC

Summer 2013

- Reviewed incoming data for anomalies
- Analyzed data for the National Environmental Radiation Monitoring (RadNet) System
- Created visualizations of data for policy reports

Relevant **Professional Experiences** indicate additional professional qualifications. List your primary responsibilities and duties.

PUBLICATIONS (Use the documentation/style manual appropriate to your field)

Graemoer, Dakshin. In prep. Chiral field theory and one- and two-pion exchange.

Graemoer, Dakshin, Dee Lee* and Maria Armanda. 2018. Lattice simulations and chiral field theory. *Physical Review Letters*, 110(1):092603.

Scallopera, Phyllis, and **Graemor Dakshin⁺**. 2017. Atomic Trap Trace sample analyses. *Reports in Electrochemistry*, 4, 67-75.

Argyle, Jason and **Graemoer Dakshin**. 2014. TeV emission from Quasar Jets. *Journal of High Energy Physics*, 11,145205.

Publications are listed in reverse chronological order and should follow the appropriate style of your discipline. Bold your name to highlight it. You may want to include DOI and hyperlinks.

*indicates undergraduate student co-author

⁺ authorship determined by coin toss

GRANTS, AWARDS, CERTIFICATES, AND HONORS

- Certificate in College Teaching, Office of Instruction and Assessment, University Arizona 2020
- College of Science's Copernicus Award, Physics Department, University of Arizona 2019
- Undergraduate Honors Fellowship - Ten participants selected annually; two-year research program, California Institute of Technology 2012
- Dean's List, California Institute of Technology – All semesters 2013

Grants, Awards, Certificates, and Honors are listed in reverse chronological order. Names that are not well recognized may require a brief explanation. Highlight relevant honors. These also might be separate headings.

PRESENTATIONS, MEETINGS, AND PUBLISHED ABSTRACTS

Graemoer, Daksin (November, 2018). “Chiral field theory and one- and two-pion exchange.” American Physical Society Meeting, Baltimore, MD.

Graemoer, Dakshin, Newton, Sarah*, Hu, Sing*, Paori, Santorini*, and Maria Armanda. 2017. “A framework for calculating electric dipole moments using chiral field theory.” Fall Meeting of the American Physical Society Prairie Section, Topeka, KS.

Graemoer, Dakshin. 2017. “Chiral field theory and neutrinos double-beta decay.” Nuclear Physics Seminar. Department of Physics, University of Arizona, Tucson, AZ.

Graemor, Dakshin* and Jason Argyle. 2013. “TeV emission from Quasar Jets.” Undergraduate Research Symposium. Poster Presentation. Southern California Conference for Undergraduate Research, Los Angeles, CA.

***indicates undergraduate student co-author**

TEACHING EXPERIENCE

University of Arizona, Department of Physics

Teaching Assistant – Introductory Physics I Laboratory (PHYS 181)

Two semesters

- Facilitated and coordinated students’ weekly lab projects
- Designed interactive weekly lesson plans for small group discussions (25 students in lab section)
- Graded lab write-ups and provided substantive, constructive feedback
- Guided students to synthesize complex theoretical concepts from weekly lectures and apply them to weekly lab projects

University of Arizona, Department of Physics

Teaching Assistant – Introductory Physics II Laboratory (PHYS 182)

Two semesters

2017-2018

- Communicated weekly pre-lab lectures to introduce lab concepts and important lab safety information
- Facilitated post-lab discussions that guided students to evaluate their research results and apply the complex theory from lecture to their lab research experiments

University of Arizona, Department of Physics

Guest Lecture – Nuclear and Particle Physics (PHYS 450) (two lectures) 2018

- Designed and presented two hour-long interactive presentations for an audience of fifty undergraduates
- Created in-class activities to maintain audience engagement

Local, regional, national, and international **presentations** provide examples of professional communication skills. Use appropriate style for your discipline.

Inclusion of student authors indicates **experience involving them in research and writing**.

Teaching Experiences are listed in reverse chronological order. List each course title and number (indicates intro or upper division course). You may also add the size of the class and your duties and responsibilities to indicate your level of responsibility.

PROFESSIONAL DEVELOPMENT

Office of Instruction and Assessment, University of Arizona

Certificate in College Teaching – 10 credit curriculum

2020

- Learner-Centered Teaching (IA 697a)
- Using Technology in Teaching (IA 697b)
- College Teaching Practice (IA 697p)
- Diversity, Equity, and Inclusion in College Teaching (IA 597d)
- Teaching Writing Across the Curriculum (IA 621m)

Professional Development

opportunities provide additional teaching or other professional expertise.

Professional Development Workshops, American Physics Society

2019

Short Course: Effective Science Communication

SERVICE ACTIVITIES

Physics Department Graduate Council Representative

2017-2018

- Oversaw establishment and operation of committees and functions on advisory panel for the Graduate School

Physics Department Graduate Students Peer Mentoring Program

2017-2018

- Assisted new graduate students' transition into graduate school

Service and outreach experiences

can indicate additional teaching and mentoring experiences, your interests, and your willingness to be a good academic citizen. List your primary responsibilities and duties.

OUTREACH

Arizona Refugee and Immigrant Services

Sept 2009-April 2010

- Telephone Conversation Partner – taught immigrants key information, over the phone, to help them pass the naturalization interview

GRADUATE COURSEWORK

Theoretical Physics (Physics 501)

Methods of Theoretical Physics II (Physics 502)

Classical Electrodynamics I (Physics 505)

Classical Electrodynamics II (Physics 506)

Quantum Mechanics I (Physics 523)

Quantum Mechanics II (Physics 524)

Statistical Mechanics (Physics 529)

Physics of Finite and Infinite Nuclear Systems (Physics 542)

Computational Methods (Physics 594)

Supervised Teaching of Physics (Physics 597)

Graduate Coursework

indicates courses you could be prepared to teach or additional expertise.

Memberships

indicate you are an active member of your professional community.

MEMBERSHIPS

American Physical Society

2015

American Physical Society – Nuclear Physics Division

2017

SKILLS

Java, C#, C++, Python

Languages and Skills

can signify additional areas of expertise, but technical skills should have context from earlier bullets.