

VINCENT CHEUNG

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Ph.D. candidate in Theoretical High Energy Nuclear Physics with a focus on Quarkonium Polarization at collider energies

EDUCATION

Ph.D. Physics, University of California, Davis *Expected June 2020*

M.S. Physics, University of California, Davis *December 2017*

B.S. Physics, University of California, Davis *June 2014*
with honors

TECHNICAL STRENGTHS

Computer Languages	C++, Fortran, Java, Python, ROOT
Operating Systems	Linux, OSX
Editing Tools	L ^A T _E X, JaxoDraw

RESEARCH EXPERIENCE

Nuclear Physics Group Winter 2016 - Present
University of California, Davis Adviser: Ramona Vogt

- Study of Quarkonium Polarization in the Improved Color Evaporation Model (ICEM)
- Group's computer systems administrator

Neutrino Group Summer 2013 - Spring 2014
University of California, Davis Adviser: Robert Svoboda

- Refurbished and calibrated photomultiplier tubes (PMTs)
- Prepared scintillators for Neutron Activation Analysis (NAA)

TEACHING EXPERIENCE

Associate Instructor and Graduate Teaching Assistant Fall 2014 - Present
University of California, Davis

- Lecture for introductory physics courses
- Co-instruct introductory physics courses
- Grade various advanced undergraduate physics courses in particle physics, quantum mechanics and general relativity
- Lead various discussion-based introductory physics courses

Undergraduate Reader and Learning Assistant Winter 2013 - Spring 2013
University of California, Davis

- Graded an introductory astronomy course
- Facilitated learning in a discussion-based introductory physics course

Official Physics, Mathematics and Statistics Tutor Spring 2012 - Summer 2012
Foothill College EOPS Department Services Coordinator: April Henderson

- Provided tutoring services for financially needy and educationally disadvantaged students

SERVICE EXPERIENCE

Graduate Student Representative

Graduate Curriculum Committee, UC Davis Physics Department

Academic Year 2018-2019

Chairperson: Robin Erbacher

- Review the physics graduate curriculum
- Prepare recommendations as needed regarding requirements for degrees and other programmatic considerations

Graduate Student Representative

Graduate Recruitment Committee, UC Davis Physics Department

Academic Year 2017-2018

Chairperson: Nicholas Curro

- Oversee the recruitment of graduate students
- Advise the admissions committee on recruitment issues

HONORS, FELLOWSHIPS AND AWARDS

2017 Department Fellowship for Fall, University of California, Davis

2017 Department Fellowship for Summer, University of California, Davis

2016 Department Fellowship for Summer, University of California, Davis

2016 Department Fellowship for Spring, University of California, Davis

2014 Department Citation for Outstanding Performance in Physics, University of California, Davis

2014 Elected Member of Phi Kappa Phi, University of California, Davis

2014 Elected Member of Sigma Pi Sigma, University of California, Davis

2012 First Year Scholar, University of California, Davis

PUBLICATIONS

Published and accepted papers in peer reviewed journals

- Production and polarization of prompt $\Upsilon(nS)$ in the improved color evaporation model using the k_T -factorization approach, V. Cheung and R. Vogt, [Phys. Rev. D 99, 034007 \(2019\)](#).
- Production and polarization of prompt J/ψ in the improved color evaporation model using the k_T -factorization approach, V. Cheung and R. Vogt, [Phys. Rev. D 98, 114029 \(2018\)](#).
- Polarization of prompt J/ψ and $\Upsilon(1S)$ production in the color evaporation model, V. Cheung and R. Vogt, [Phys. Rev. D 96, 054014 \(2017\)](#).
- Polarized heavy quarkonium production in the color evaporation model, V. Cheung and R. Vogt, [Phys. Rev. D 95, 074021 \(2017\)](#).

Published conference abstracts

- “Quarkonium production and polarization”, [APS GHP Workshop, Apr 2019](#).
- “Polarization of prompt J/ψ and $\Upsilon(1S)$ production in the color evaporation model using the k_T -factorization approach”, [Annual Meeting of the APS Far West Section, Nov 2017](#).
- “Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [APS GHP Workshop, Feb 2017](#).
- “Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [Annual Meeting of the APS Far West Section, Oct 2016](#).

INVITED PRESENTATIONS

“Quarkonium production and polarization”, [APS GHP Workshop, Apr 2019](#)

“Polarization of quarkonium in $p+p$ and $h+A$ ”, [Workshop on Heavy Flavor Production in High Energy Collisions, Oct 2017](#).

CONTRIBUTED PRESENTATIONS

“Polarization of prompt J/ψ and $\Upsilon(1S)$ production in the color evaporation model using the k_T -factorization approach”, [Annual Meeting of the APS Far West Section, Nov 2017](#).

“Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [APS GHP Workshop, Feb 2017](#)

“Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [Annual Meeting of the APS Far West Section, Oct 2016](#).