

# 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

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**Ph.D. Physics**, University of California, Davis *Expected June 2019*

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

## TECHNICAL STRENGTHS

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<b>Computer Languages</b>	C++, Fortran, Java, Python, ROOT
<b>Operating Systems</b>	Linux, OSX
<b>Editing Tools</b>	L <sup>A</sup> T <sub>E</sub> X, JaxoDraw

## RESEARCH EXPERIENCE

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

- Study Quarkonium Polarization in the Color Evaporation Model (CEM)
- Administrate Computer Systems

**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

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

- 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

## HONORS, FELLOWSHIPS AND AWARDS

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2017 Department Fellowship for Fall, University of California, Davis  
2017 Department Fellowship for Summer, University of California, Davis  
2017 Associate In. Title for Spring, University of California, Davis  
2017 Associate In. Title for Winter, 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

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### Published and accepted papers in peer reviewed journals

- Polarization of prompt  $J/\psi$  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 \(2017\)](#).

### Manuscripts in preparation

- Polarization of prompt  $J/\psi$  and  $\Upsilon(1S)$  production at high energy in the color evaporation model using the  $k_T$ -factorization approach, V. Cheung and R. Vogt.

### Published conference abstracts

- “Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [APS GHP Workshop, Feb 2017](#).
- “Polarized Heavy Quarkonium Production in the Color Evaporation Model”, [APS Sectional Meeting, Oct 2016](#).

## INVITED PRESENTATIONS

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“Polarization of prompt  $J/\psi$  and  $\Upsilon(1S)$  production in the color evaporation model using the  $k_T$ -factorization approach”, [Workshop on Heavy Flavor Production in High Energy Collisions, Oct 2017](#).

## CONTRIBUTED PRESENTATIONS

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“Polarization of prompt  $J/\psi$  and  $\Upsilon(1S)$  production in the color evaporation model using the  $k_T$ -factorization approach”, [APS Far West Sectional Meeting, 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”, [APS Far West Sectional Meeting, Oct 2016](#).