# Andrew Wray

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## Education

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| **University of Oregon**, Ph.D. in Mathematics | 2014-present |
| **Western Washington University**, B.S. in Mathematics & Physics | 2010-2014 |

## Research Interests

I work at the crossroad of algebraic geometry, differential geometry, and physics. Currently I am studying generalizations of stable holomorphic structures on vector bundles over K3 surfaces under the supervision of Dr. Nicolas Addington.

## Papers

### In Physics

Hyperspherical approach to a three-boson problem in two dimensions with a magnetic field, with Seth Rittenhouse and Brad Johnson, Phys. Rev. A **93**, 012511

## Talks

### Given at University of Oregon

*The Kobayashi-Hitchin Correspondence*, Fall 2017, Ring-Op Seminar

*Intersection Theory on Singular Algebraic Surfaces*, Fall 2017, Ring-Op Siminar

*K3 Surfaces*, Spring 2017, Basic Notions Seminar

*Twisted Torelli*, Spring 2017, Ring-Op Seminar

*Algebraic Hodge Decomposition* Fall 2017, Ring-Op Seminar

*De Rham Cohomology* Spring 2016, Graduate Notions Seminar

*Non-projective Surfaces*, Fall 2016, Ring-Op Seminar

*Torelli Theorems on K3 Surfaces*, Fall 2016, Ring-Op Seminar

## Workshops and Conferences

*Moduli of Sheaves and Strange Duality*, December 8-10, 2017
> Penn State University

*Western Algebraic Geometry Symposium*, April 8-9, 2017
> University of British Columbia

*Western Algebraic Geometry Symposium*, October 22-23, 2016
> Colorado State University

*Derived Categories and Chow groups of hyperkaehler and Calabi-Yau varieties*, September 19-23, 2016
> Simons Center for Geometry and Physics

## Teaching Experience

*Graduate Teaching Fellow at the University of Oregon*, 2014-present

Instructor of Record for the following courses:

> College Algebra *(Fall 2014, Winter 2015, Spring 2015, Fall 2015)*
> Elementary Functions *(Winter 2015, Winter 2016)*
> Introduction to Probability and Statistics *(Summer 2015)*
> Calculus for Biological Sciences 1 *(Fall 2016, Winter 2018)*
> Calculus for Biological Sciences 2 *(Spring 2017)*

Teaching Assistant for the following course:

> Introduction to Probability and Statistics *(Spring 2016, Fall 2017)*

## Service and Outreach

Association for Women in Mathematics, University of Oregon Student Chapter
> Mentor in the Undergraduate Reading Program, 2016-present