

# WEIHONG XU

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## RESEARCH INTERESTS

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Algebraic geometry and combinatorics.

## EMPLOYMENT

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Postdoctoral Associate, Virginia Tech, Mentor: Leonardo Mihalcea Oct 2022 –

## EDUCATION

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Ph.D. Mathematics, Rutgers University, Advisor: Anders Buch Sept 2017 – Oct 2022

M.S. Mathematics, Courant Institute Sept 2014 – May 2016

B.S. Theoretical and Applied Mechanics, Peking University Sept 2010– July 2014

## PUBLICATIONS AND PREPRINTS

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1. The isomorphism problem for Grassmannian Schubert varieties (with M. Tarigradschi), *submitted*, arXiv: 2205.12814.
2. Quantum  $K$ -theory of Incidence Varieties, *submitted*, arXiv: 2112.13036.
3. On an equivalence of divisors on  $\overline{M}_{0,n}$  from Gromov-Witten theory and conformal blocks (with L. Chen et al), *Transformation Groups* (2022), arXiv: 2107.00174.

## CONFERENCE AND SEMINAR TALKS

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MIT-Harvard-MSR Combinatorics Seminar, MIT Oct 2022

AMS Special Session on Combinatorial Algebraic Geometry Oct 2022

Virginia Tech Algebra Seminar Sept 2022

Algebraic Geometry Northeastern Series, Rutgers University (*poster*) May 2022

Schubert Seminar Mar 2022

Versailles Saint-Quentin-en-Yvelines University Seminars AG Feb 2022

Rutgers University Algebra Seminar Jan 2022

ICERM Geometry and Combinatorics from Root Systems workshop Mar 2021

ICERM Sage/Oscar Days for Combinatorial Algebraic Geometry workshop Feb 2021

American Graduate Student Algebraic Geometry Seminar (AGSAGS) Dec 2020

## TEACHING

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ICERM, Teaching Assistant

Combinatorial Algebraic Geometry Introductory Workshop (*online*) Feb 2021

Rutgers University, Instructor

Introductory Linear Algebra (*online*) Summer 2020

Rutgers University, Teaching Assistant

Special Pre-enrollment Program for New Graduate Students (*online*) Aug 2020

Differential Equations for Engineering and Physics Spring 2020

Calculus I Math/Physics (Honors)	Fall 2019
Graduate Algebra I	Fall 2018
<b>Johns Hopkins Center for Talented Youth</b> , Teaching Assistant	
Inductive and Deductive Reasoning ( <i>for 5th and 6th graders</i> )	Summer 2017
<b>New York University</b> , Recitation Leader	
Great Ideas in Math	Fall 2015

## SERVICE AND MENTORING

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Math Department Liaison, Rutgers Overseas Semester Program	Aug 2020 – Dec 2021
Co-organizer, Graduate Student and Postdoc Seminar,	
ICERM Combinatorial Algebraic Geometry Semester Program	Spring 2021
Discussion Leader, International Teaching Assistant Orientation, Rutgers University	Aug 2019
Graduate Mentor, undergraduate research on Schubert calculus (REU), Rutgers University	Summer 2018

## HONORS AND AWARDS

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Rutgers University School of Arts and Sciences Graduate Fellowship	Spring 2021
Rutgers University Janice Pattwell Annual Mathematics Fellowship	2020
Rutgers University TA/GA Professional Development Fund	2018

## OTHER TALKS

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### Rutgers University

Graduate Algebra and Representation Theory Seminar ( <i>2 talks</i> )	2018, 2021
Algebraic Geometry Learning Seminar	2019
Research Glimpse for Incoming Graduate Students	2018
Graduate Combinatorics Seminar	2018
Undergraduate Math Seminar	2018

### Temple University

Annual Graduate Student Conference in Algebra, Geometry, and Topology	2018
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### Courant Institute

CSplash ( <i>annual lecture series for high school students</i> )	2016
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## CONFERENCES ATTENDED

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AMS Fall Eastern Sectional Meeting	Oct 2022
Biannual Algebraic and Tropical Meetings at Brown and Institutions Located in Its Environs	Sept 2022
The Los Angeles Workshop on Representations and Geometry	June 2022
Algebraic Geometry Northeastern Series ( <i>4 times</i> )	Apr 2018, Sept 2019, Oct 2020, May 2022
Degeneracy Loci and Applications, Ohio State University	May 2021
Combinatorial Algebraic Geometry Semester Program, ICERM	Spring 2021
Women in Algebraic Geometry, ICERM	July 2020

Western Algebraic Geometry Online (WAGON)	Apr 2020
Algebraic Geometry is Online in Zoom Everyone (AGONIZE)	Mar 2020
AMS Special Session on Singularities and Characteristic Classes, Denver	Jan 2020
Facets of Algebraic Geometry, University of Michigan	Oct 2019
Workshop on Forms, Flags, Graphs and Beyond, the Fields Institute	May 2019
Mid-Atlantic Algebra, Geometry, and Combinatorics, University of Pennsylvania and Drexel University	May 2019
Combinatorics and Beyond: the Many Facets of Sergey Fomin's Mathematics, University of Michigan	Nov 2018
Andrei Okounkov – Virginia Mathematics Lectures, University of Virginia	Oct 2018
Representation theory, Combinatorics, and Geometry, University of Virginia	Oct 2018
Yamabe Memorial Symposium, University of Minnesota	Sept 2018
Combinatorics and Hodge theory, Sophus Lie Conference Center	June 2018