

Randall R. Van Why Jr.

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Education

Northwestern University

PhD. Mathematics

Evanston, IL

2017 – 2024

Princeton University

Trailing PhD. Student and Fellow

Princeton, NJ

2021 – 2023

University of Chicago

MSc. in Physical Sciences

Chicago, IL

2016 – 2017

New Mexico Institute of Mining and Technology (NMT)

BSc. in Mathematics and Computer Science; Summa cum laude

Socorro, NM

2012 – 2016

Interests: Symplectic and Contact Geometry, Low-dimensional Topology

Affiliation

Georgia Institute of Technology

Visiting Assistant Professor

Atlanta, GA

2024 – Present

Institute for Advanced Study

Visiting Graduate Student

Princeton, NJ

2019

Conferences and Seminars

Organizer

GT-UGA Joint Geometry Topology Seminar

Georgia Institute of Technology

Atlanta, GA

October 2024 – Present

AMS Eastern Sectional at Clemson University

Special Session on Invariants in Geometric Topology: Low Dimensions and Beyond

Clemson, SC

March 2025

Tech Topology Conference

Georgia Institute of Technology

Atlanta, GA

December 2024

Participant

Midwest Panorama of Geometry and Topology

University of Iowa

Iowa City, IA

June 2025

2025 Georgia Topology Conference

University of Georgia

Athens, GA

May 2025

Tech Topology Conference

Georgia Institute of Technology

Atlanta, GA

December 2024

Workshop in Geometric Topology

Calvin University

Grand Rapids, MI

June 2024

Graduate Student Topology/Geometry Conference

Michigan State University

East Lansing, MI

April 2024

Tech Topology Conference

Georgia Institute of Technology

Atlanta, GA

December 2023

Trisectors Workshop 2023

University of California Davis

Davis, CA

June 2023

2023 Georgia Topology Conference <i>University of Georgia</i>	Athens, GA <i>May 2023</i>
Midwest Geometry Conference 2023 <i>Kansas State University</i>	Manhattan, KS <i>March 2023</i>
SYNC Early Career Workshop <i>University of California Davis</i>	Davis, CA <i>August 2022</i>
Deformations of Geometric Structures in Current Mathematics <i>Columbia University</i>	New York City, NY <i>May 2022</i>
Graduate Student Topology/Geometry Conference <i>Indiana University</i>	Online <i>April 2021</i>
Eighth Pacific Rim Conference in Mathematics <i>University of California Berkeley</i>	Online <i>August 2020</i>
Southern California Geometric Analysis Summer School <i>University of California Irvine</i>	Irvine, CA <i>February 2020</i>
Summer Northwestern Analysis Program (SNAP) <i>Northwestern University</i>	Evanston, IL <i>August 2019</i>
Graduate Summer School on the Homological Algebra of Mirror Symmetry <i>Fields Institute</i>	Toronto, Canada <i>July 2019</i>
Current Trends in Symplectic Topology <i>Centre de Recherches Mathématiques</i>	Montreal, Canada <i>July 2019</i>
Kylerec 2019 <i>Graduate Workshop</i>	Truckee, CA <i>June 2019</i>
Tsyganfest <i>Northwestern University</i>	Evanston, IL <i>May 2018</i>
UChicago/Northwestern Geometric Analysis Day <i>Northwestern University</i>	Evanston, IL <i>April 2019</i>
Graduate Student Topology and Geometry Conference <i>University of Illinois at Urbana-Champaign</i>	Champaign-Urbana, IL <i>March 2019</i>
Virginia Topology Conference <i>University of Virginia</i>	Charlottesville, VA <i>December 2018</i>
MSRI Summer Graduate School: The h-Principle <i>University of Tokyo</i>	Tokyo, Japan <i>June/July 2018</i>
Graduate Student Topology/Geometry Conference <i>University of Illinois at Chicago</i>	Chicago, IL <i>April 2018</i>
Geometric Analysis Day 2018 <i>University of Chicago</i>	Chicago, IL <i>March 2018</i>
Southern California Geometric Analysis Seminar <i>University of California Irvine</i>	Irvine, CA <i>January 2018</i>
2017 Midwest Geometry Conference <i>Kansas State University</i>	Manhattan, KS <i>November 2017</i>
Summer Northwestern Analysis Program (SNAP) <i>Northwestern University</i>	Evanston, IL <i>June-July 2017</i>
Thematic Program on Kähler Geometry <i>University of Notre Dame</i>	Notre Dame, IN <i>June 2017</i>
UChicago Geometric Analysis Learning Seminar <i>University of Chicago</i>	Chicago, IL <i>October 2016</i>
University of Chicago Geometry and Topology Summer School <i>University of Chicago</i>	Chicago, IL <i>August 2016</i>

University of Chicago REU
University of Chicago
AMS Sectional Meeting
University of New Mexico

Chicago, IL
June 2015
Albuquerque, NM
April 2014

Talks

Conference Talks

Midwest Panorama of Geometry and Topology <i>Symplectic geometry, surface configurations, and non-algebraic manifolds</i>	Iowa City, IA <i>June 2025</i>
41st Workshop in Geometric Topology 2024 <i>Symplectic Stories from Algebraic Geometry</i>	Grand Rapids, MI <i>June 2024</i>
Graduate Student Geometry Topology Conference <i>Symplectic and Contact Geometries in Low Dimensions</i>	East Lansing, MI <i>April 2024</i>
Tech Topology Conference <i>Compactifications of Symplectic Manifolds (Cancelled due to illness)</i>	Atlanta, GA <i>December 2023</i>
Trisectors Workshop 2023 <i>Divisors and the Trisection of \mathbb{CP}^2</i>	Davis, CA <i>June 2023</i>
2023 Georgia Topology Conference <i>The Symplectic Geometry of \mathbb{CP}^2</i>	Athens, GA <i>May 2023</i>
Kylerec 2019 <i>Liouville and Weinstein Skeleta</i>	Truckee, CA <i>June 2019</i>

Invited Seminar Talks

University of Alabama Geometry-Topology Seminar <i>Stein Manifolds and Normal Crossing Compactifications of PALFs</i>	Tuscaloosa, AL <i>October 2025 (Planned)</i>
Columbia University Geometry Seminar <i>Non-Affine Stein Manifolds and Normal Crossing Divisors</i>	New York City, NY <i>September 2025 (Planned)</i>
University of Georgia Topology Seminar <i>Symplectic NC-Divisors, Compactifications, and Non-Affine Symplectic Manifolds</i>	Athens, GA <i>March 2025</i>
UMASS Amherst Geometry Topology Seminar <i>Symplectic NC-Divisors, Compactifications, and Non-Affine Symplectic Manifolds</i>	Amherst, MA <i>October 2022</i>

Seminar Talks

GT-Geometry Topology Research Seminar <i>Special Lecture Series on Kähler Geometry (6 lectures)</i>	Atlanta, GA <i>October 2025 (Planned)</i>
Special Seminar on The Yang-Mills Equations over Riemann Surfaces <i>Equivariant Morse Theory</i>	Atlanta, GA <i>January 2025</i>
GT Geometry Literature Seminar <i>The Structure of Rational and Ruled Symplectic 4-Manifolds by D. McDuff</i>	Atlanta, GA <i>November 2024</i>
GT Geometry Literature Seminar <i>Morse theory for Lagrangian Intersections by A. Floer</i>	Atlanta, GA <i>September 2024</i>
Georgia Tech Geometry Topology Seminar <i>Symplectic NC-Divisors, Compactifications, and Non-Affine Symplectic Manifolds</i>	Atlanta, GA <i>August 2024</i>
Northwestern Graduate Student Seminar <i>Toward Compression Progress</i>	Evanston, IL <i>March 2024</i>
Northwestern Geometry and Physics Seminar <i>Three Lectures on Weinstein/Liouville Geometry</i>	Evanston, IL <i>January 2024</i>

Northwestern Geometry and Physics Seminar <i>Normal Crossing Divisors and Non-Affine Manifolds</i>	Evanston, IL November 2023
Northwestern Graduate Student Seminar <i>A tale of Exp and Log</i>	Evanston, IL September 2023
GT GAPS Seminar <i>Normal Crossing Divisor Compactifications of Symplectic Manifolds</i>	Online April 2023
Notre Dame Geometry Group Seminar <i>Linear Plumbings of Disk Bundles over Spheres and Symplectic Divisors with Normal Crossings</i>	South Bend, IN July 2021
Northwestern Geometry Group Seminar <i>Linear Plumbings of Disk Bundles over Spheres and Symplectic Divisors with Normal Crossings</i>	Evanston, IL May 2021
Northwestern Graduate Student Seminar <i>Milnor's Fibration Theorem</i>	Evanston, IL January 2021
Notre Dame Graduate Student Seminar <i>Milnor's Fibration Theorem</i>	South Bend, IN December 2020
Northwestern Geometry Group Seminar <i>Symplectic Divisors and Biran-Giroux Decompositions</i>	Evanston, IL September 2020
UCLA Special Seminar on Flexibility in Symplectic and Contact Geometry <i>Flexibility and Plastikstufe</i>	Los Angeles, CA July 2020
Geometry for All Seminar <i>Symplectic Geometry</i>	Evanston, IL March 2020
Special Symplectic Geometry Seminar <i>Donaldson's Divisor Theorem</i>	Evanston, IL January 2020
Northwestern Graduate Student Seminar <i>4-Manifolds</i>	Evanston, IL March 2019
Special Seminar on Gromov's Compactness Theorem for J-Holomorphic Curves <i>Eliashberg's Method of Filling by J-Holomorphic Curves</i>	Evanston, IL March 2019
Special Seminar on Gromov's Compactness Theorem for J-Holomorphic Curves <i>Gromov's Compactness Theorem</i>	Evanston, IL February 2019
Special Seminar on Gromov's Compactness Theorem for J-Holomorphic Curves <i>Higher derivative bounds</i>	Evanston, IL January 2019
New Mexico Tech Philosophy of Mathematics Seminar <i>Various Topics</i>	Socorro, NM 2015-2017
New Mexico Tech ACM <i>Elliptic Curve Cryptography</i>	Socorro, NM February 2016
New Mexico Tech Topology Seminar <i>The h-Cobordism Theorem</i>	Socorro, NM Fall 2015
New Mexico Tech Colloquium <i>Configuration Spaces, Braid Groups, and Polynomials</i>	Socorro, NM September 2015
UChicago REU <i>Configuration Spaces, Braid Groups, and Polynomials</i>	Chicago, IL August 2015

Teaching

Instruction

Georgia Institute of Technology Math 1554 <i>Linear Algebra</i>	Instructor
Georgia Institute of Technology Math 1553 <i>Introduction to Linear Algebra</i>	Instructor
Georgia Institute of Technology Math 1551 <i>Single Variable Calculus</i>	Instructor

Teaching Assistant/Grading

Northwestern University Math 382 <i>Complex Analysis</i>	<i>TA/Grader</i>
Northwestern University Math 344 <i>Abstract Linear Algebra</i>	<i>TA/Grader</i>
Northwestern University Math 330 <i>Abstract Algebra</i>	<i>TA/Grader</i>
Northwestern University Math 310 <i>Probability Theory</i>	<i>TA/Grader</i>
Northwestern University Math 300 <i>Foundations of Higher Mathematics</i>	<i>TA/Grader</i>
Northwestern University Math 290 <i>Linear Algebra</i>	<i>TA/Grader</i>
Northwestern University Math 285 <i>Accelerated Mathematics for MMSS: Linear Algebra</i>	<i>TA/Grader</i>
Northwestern University Math 240 <i>Matrix Algebra</i>	<i>TA/Grader</i>
Northwestern University Math 234 <i>Multivariable Integral Calculus</i>	<i>TA/Grader</i>
Northwestern University Math 230 <i>Multivariable Differential Calculus</i>	<i>Exam Grader</i>
Northwestern University Math 224 <i>Single Variable Integral Calculus</i>	<i>Exam Grader</i>

Mentorship

Northwestern University DRP <i>Graduate Mentor</i>	Evanston, IL 2019, 2020
Northwestern University Mathematics Department <i>Graduate Tutor</i>	Evanston, IL 2017-2018
University of Chicago REU <i>Graduate Mentor</i>	Chicago, IL 2016, 2017, 2018, 2019, 2020

Memberships and Sponsors

American Mathematical Society (2014–Present)
Georgia Institute of Technology President’s Postdoctoral Fellow (2024–Present)
Princeton University Fellow (2021–2023)
NSF RTG Support DMS-1502632 (2018–2021)
Northwestern University Fellow (2017–2018)