Robin Neumayer

Curriculum Vitae

Education

2017 **Ph.D. in Mathematics**, *University of Texas*, Austin.
Supervised by Alessio Figalli and Francesco Maggi.

2014 **M.A. in Mathematics**, *University of Texas*, Austin.

2012 **B.S. in Mathematics**, *University of South Carolina*, Columbia.
Summa cum laude, degree with distinction, minor in business.

Academic Appointments

2025– **Carnegie Mellon University**, Associate Professor.

2023–25 **Carnegie Mellon University**, Assistant Professor.

2021–2023 **Carnegie Mellon University**, Gregg Zeitlin Early Career Professor.
(Tenure-track Assistant Professor.)

2017–2021 **Northwestern University**, RTG Postdoctoral Fellow.
On leave for 2018–2019 academic year.

2018–2019 **Institute for Advanced Study**, Member.
For the Variational Methods in Geometry special year.

Grants and Awards

2024–2029 **NSF RTG Grant**, *Co-Principal Investigator*, DMS-2342349.
"RTG: Frontiers in Applied Analysis,"
Co-PI together with PI D. Slepcev and co-PIs I. Fonseca, G. Iyer, and N. Walkington

2024–2029 **NSF CAREER Grant**, *Principal Investigator*, DMS-2340195.
"CAREER: Geometric aspects of isoperimetric and Sobolev-type inequalities,"

2024 **AWM Sadosky Prize in Analysis**.

2022–2025 **NSF Grant**, *Prinicipal Investigator*, DMS-2155054.
"Stability and Regularity: From Analysis to Geometry."

2021–2023 **Gregg Zeitlin Early Career Chair**.

2019–2022 **NSF Grant**, *Principal Investigator*, DMS-1901427 (renamed DMS-2200886).
"Stability of functional and geometric inequalities and applications."

2019 **AWM Travel Grant**.
Declined after receiving NSF grant.

2019 **US Junior Oberwolfach Fellow**.

2018 **Oberwolfach Leibniz Graduate Student**.

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Carnegie Mellon University, Pittsburgh, PA 15213
neumayer@cmu.edu • *www.math.cmu.edu/ rneumaye*

2017 **AustMS Travel Award**.
For the International Conference on PDEs, Geometric Analysis, and Functional Analysis in Sydney, Australia.

2012–2017 **NSF Graduate Research Fellowship**, DGE-1110007.

2012–2013 **Graduate Fellowship**, UT Department of Mathematics.

2012 **Outstanding Student of Mathematics Award**, University of South Carolina.

2011 **Rising Senior in Mathematics Award**, University of South Carolina.

Research Publications

[1] **Singular set estimates in quasilinear Alt-Caffarelli problems**.
A. De Rosa, R. Neumayer, and H. Yu. Preprint available at arXiv:2610.34986.

[2] **Minimizing clusters with prescribed asymptotic geometry**.
R. Neumayer, M. Novack, and A. Skorobogatova. Preprint available at arXiv:2606.07468.

[3] **Qualitative stability for a family of trace Sobolev inequalities**.
R. Neumayer. Preprint available at arXiv:2605.28982.

[4] **Rigidity of critical points of hydrophobic capillary functionals**.
A. De Rosa, R. Neumayer, and R. Resende. Preprint available at arXiv:2509.22532

[5] **Quantitative estimates for the relative isoperimetric problem and its gradient flow outside convex bodies in the plane**.
E. Mäder-Baumdicker, R. Neumayer, J. Park, and M. Rupflin. Preprint available at arXiv:2508.21198

[6] **On the non-uniqueness of locally minimizing clusters via singular cones**.
L. Bronsard, R. Neumayer, M. Novack, and A. Skorobogatova. Accepted to *Trans. Amer. Math. Soc.*, preprint available at arXiv:2507.13995.

[7] **Quantitative Resolvent and Eigenfunction Stability for the Faber-Krahn Inequality**.
M. Allen, D. Kriventsov, and R. Neumayer. Preprint available at arXiv:2504.13053

[8] **Local minimizers of the anisotropic isoperimetric problem on closed manifolds**.
A. De Rosa and R. Neumayer. *Indiana Univ. Math. J.* 74 (2025), no. 5, 1423–1466.

[9] **Epsilon regularity under scalar curvature and entropy lower bounds and volume upper bounds**.
R. Neumayer. *CMSA Special Year Program on General Relativity and Scalar Curvature, Harvard CMSA book series, vol. 4.* 2024.

[10] **Rectfiability and uniqueness of blowups for points with positive Alt-Caffarelli-Friedman limit**.
M. Allen, D. Kriventsov, and R. Neumayer. *Math. Ann.* 391 (2025), no. 4, 6251–6289.

[11] **Rigidity theorems for best Sobolev inequalities**.
F. Maggi, R. Neumayer, and I. Tomasetti. *Adv. Math.* Volume 434, 2023, 109330.

[12] **Sharp quantitative Faber-Krahn inequalities and the Alt-Caffarelli-Friedman monotonicity formula**.
M. Allen, D. Kriventsov, and R. Neumayer. *Ars Inven. Anal. 2023*, Paper No. 1, 49 pp.

[13] **Linear Stability Implies Nonlinear Stability for Faber-Krahn Type Inequalities**.
M. Allen, D. Kriventsov, and R. Neumayer. *Interfaces Free Bound.* 25(2):217–324, 2023.

[14] **d_p Convergence and ϵ-regularity theorems for entropy and scalar curvature lower bounds**.
M.-C. Lee, A. Naber, and R. Neumayer. *Geom. Topol.*, 27-1 (2023), 227–350.

[15] **Quantitative stability for minimizing Yamabe metrics**.
M. Engelstein, R. Neumayer, and L. Spolaor. *Trans. Amer. Math. Soc. Ser. B.*, **9** (2022) 395-414.

[16] **A note on strong-form stability for the Sobolev inequality**.
R. Neumayer. *Calc. Var. Partial Differential Equations*, **59** (2020), no. 1, Paper No. 25, 8pp.

[17] **Anisotropic liquid drop models**.
R. Choksi, R. Neumayer, and I. Topaloglu. *Adv. Calc. Var.*, **15** (2022), no. 1, 109-131.

[18] **Bubbling with L^2-almost constant mean curvature and an Alexandrov-type theorem for crystals**.
M.G. Delgadino, F. Maggi, C. Mihaila, and R. Neumayer. *Arch. Ration. Mech. Anal.* **230** (2018) no. 3, 1131–1177.

[19] **The Cheeger constant of a Jordan domain without necks**.
G.P. Leonardi, R. Neumayer, and G. Saracco. *Calc. Var. Partial Differential Equations.* **56** (2017), no. 6, Art. 164, 29 pp.

[20] **A bridge between Sobolev and Escobar inequalities and beyond**.
F. Maggi and R. Neumayer. *J. Funct. Anal.* **273** (2017), no. 6, 2070–2106.

[21] **Higher regularity of the free boundary for the fractional obstacle problem**.
Y. Jhaveri and R. Neumayer, *Adv. Math.* **311** (2017), 748–795.

[22] **Gradient stability for the Sobolev inequality: the case $p \geq 2$**.
A. Figalli and R. Neumayer. *J. Eur. Math. Soc. (JEMS)* **21** (2019), no. 2, 319–354.

[23] **A strong form of the quantitative Wulff inequality**.
R. Neumayer. *SIAM J. Math. Anal.* **48** (2016), no. 3, 1727–1772.

[24] **A note on the stability of the Cheeger constant of N-gons**.
M. Caroccia and R. Neumayer. *J. Convex Anal.* **22** (2015), no. 4, 1207–1213.

Other Publications – Book Chapters, Proceedings, and Thesis

[25] **Epsilon regularity for spaces with scalar curvature lower bounds**.
R. Neumayer. To appear in *Differentialgeometrie im Grossen. Oberwolfach Report.*

[26] **Existence of Extremals and Rigidity for Optimal Sobolev Inequalities**.
R. Neumayer. In: *Geometrie. Oberwolfach Rep.* 19 (2022), no. 2, pp. 1551–1601

[27] **Convergence and regularity of manifolds with scalar curvature and entropy lower bounds**.
M.-C. Lee, A. Naber, and R. Neumayer. *Perspectives in Scalar Curvature.* Vol. 1, pages 543–576. World. Sci. Publ., Hackensack, NJ, 2023.

[28] **Characterizing minimizers of a constrained planar isoperimetric problem**.
R. Neumayer. In: *Partial Differential Equations. Oberwolfach Rep.* **16** (2019), no. 3, 2046–2048.

[29] **On minimizers and critical points for anisotropic isoperimetric problems**.
R. Neumayer. *2018 Matrix Annals*, 293–302.

[30] **Mass transportation methods in functional inequalities and a new family of sharp constrained Sobolev inequalities**.
R. Neumayer. *RIMS Kôkyûroku* (2017), no. 2046, 39–49.

[31] **Stability and minimality properties in Sobolev and isoperimetric inequalities**.
R. Neumayer. Ph.D. thesis containing the results of [23], [22], and [20]. Available at https://www.math.cmu.edu/ rneumaye.

Invited Conference Talks (including upcoming/scheduled)

June 2027	Dynamics, Equations, and Applications (AGH UST, Kraków, Poland)
Jan. 2027	Workshop on Geometric and Functional Inequalities and Their Applications (University of Milan)
Nov. 2026	Workshop on Free Boundary Problems (Centre de Recerca Matemàtica in Barcelona)
Oct. 2026	Workshop on "Functional inequalities, their stability and related PDEs" (Tianyuan Mathematics Research Center in Kunming, China)
Aug. 2026	KTH Workshop on Nonlinear PDEs, Harmonic Analysis, and Free Boundary Problems (KTH)
June 2026	International Geometric Analysis Conference in Milan II (Bocconi University)
Nov. 2025	Workshop on Harmonic Analysis and PDE (University of Pittsburgh)
June 2025	International Geometric Analysis Conference in Milan (Bocconi University)
May 2025	"Matter of Shapes" INdAM-workshop in Cortona
May 2025	PDE conference in Hong Kong (Hong Kong University of Science and Technology)
July 2024	Geometry of Measures and Free Boundaries; a Conference in Honor of Tatiana Toro (University of Washington)
June 2024	Barcelona Analysis Conference (University of Washington)
July 2023	Oberwolfach Workshop on Differentialgeometrie im Grossen
June 2024	Barcelona Analysis Conference (University of Barcelona)
July 2023	Oberwolfach Workshop on Differentialgeometrie im Grossen

June 2023	Regularity Theory for Free Boundary and Geometric Variational Problems (Levico Terme)
Nov. 2022	Aspects of Ricci curvature bounds (Fields Institute)
June 2022	Oberwolfach Workshop on Geometry
May 2022	Rutgers Geometric Analysis Conference
Sept. 2021	Sampling Algorithms and Geometries on Probability Distributions Workshop (Simons Institute for the Theory of Computing, Virtual)
Sept. 2021	Research on Variational Problems and Partial Differential Equations with a Critical Exponent (Osaka City University, Virtual, series of two talks)
Sept. 2021	Regularity Theory for Free Boundary and Geometric Variational Problems (Levico Terme)
May 2021	John Barrett Memorial Lectures (University of Tennessee, Virtual)
March 2021	AMS Sectional Meeting (Virtual) Special Session on "Geometric and Functional Inequalities and Nonlinear Partial Differential Equations"
Feb. 2021	Geometric and functional inequalities and recent topics in nonlinear PDEs (Virtual)
Feb. 2021	Seminario Interuniversitario de Investigación en Ciencias Matemáticas (Virtual)
Jan. 2021	Joint Mathematics Meeting (Virtual) Special Session on "PDEs in optimization, control, and games"
Nov. 2019	AMS Sectional Meeting (UC Riverside) Special Session on "Analysis of Nonlinear Partial Differential Equations and Applications"
Oct. 2019	Modern Math Workshop (Honolulu, HI, Satellite of SACNAS National Conference) Research Session and IAS/PCMI Representative
Oct. 2019	Local and Nonlocal Trends in Analysis and Geometry (University of Pittsburgh)
Sept. 2019	Dynamics, Equations, and Applications (AGH UST, Kraków, Poland)
July 2019	Oberwolfach Workshop on Partial Differential Equations
June 2019	RTG Conference on Geometric Analysis (Princeton University)
May 2019	Geometry Workshop (University of British Columbia)
April 2019	AMS Sectional Meeting (University of Connecticut) Special Session on "Regularity Theory of PDEs and Calculus of Variations on Domains with Rough Boundaries"
March 2019	AMS Sectional Meeting (University of Hawaii) Special Session on "Analysis of Nonlinear Geometric Equations" Special Session on "New Trends in Geometric Measure Theory" Special Session on "Interactions between Geometric Measure Theory, PDE, and Harmonic Analysis"
Nov. 2018	Recent Trends in Nonlinear PDEs of Elliptic and Parabolic Type (MATRIX Institute)

Nov. 2018 Recent Trends in Nonlinear PDEs (University of Sydney)

Oct. 2018 82nd Midwest PDE Seminar (Purdue University)

July 2018 Workshop for Women in Differential Equations (Universidade Federal do ABC, Santo André, Brazil)

July 2018 PCMI Research Program in Harmonic Analysis

April 2018 81st Midwest PDE Seminar (University of Wisconsin)

April 2018 AMS Sectional Meeting (Portland State University)
Special session on "Analysis at the intersection of Geometric Measure Theory and Partial Differential Equations"

April 2018 6th Annual Midwest Women in Mathematics Symposium (Purdue University)

April 2018 Graduate Student Topology and Geometry Conference (University of Illinois at Chicago)

July 2017 Mathematical Congress of the Americas (Montreal)
Special session on "Nonlocal Variational Problems"

March 2017 International Conference on PDEs, Geometric Analysis and Functional Inequalities (University of Sydney)

Nov. 2016 RIMS Workshop on Analysis on Shapes of Solutions to Partial Differential Equations (Kyoto University)

July 2016 AIMS Conference on Dynamical Systems, Differential Equations and Applications (Orlando, FL)
Special session on "Geometric functional inequalities and application to PDEs"
Special session on "Quantitative geometric and functional inequalities and new trends in nonlinear PDEs"

Seminar and Colloquium Talks (including upcoming/scheduled)

May 2026 Analysis Seminar, UCSD

April 2026 Mathematical Physics Seminar, Georgia Tech

March 2026 PDE Seminar, University of Minnesota

Nov. 2025 Analysis, Geometry and Dynamics Seminar, University of Washington

Oct. 2025 ITS Seminar, ETH

Feb. 2025 GAP Seminar, Penn State University

Nov. 2024 Analysis & PDE Seminar, Johns Hopkins University

June 2024 Nonlinear Analysis Seminar, Virtual

April 2023 PDE-Applied Math Seminar, University of Maryland

March 2023 Online PDE Seminar, Virtual

Feb. 2023 Differential Geometry and Geometric Analysis Seminar, Princeton

Nov. 2022 Colloque des Sciences Mathématiques, Montreal

Nov. 2022 Colloquium, Stony Brook University

Oct. 2022 Colloquium, McMaster University

Sept. 2022 Analysis, PDE and Applied Math Seminar, University of Toronto

April 2022	Geometric Analysis and Topology Seminar, Courant Institute (Virtual)
April 2022	Nonlinear Analysis Seminar, NC State University (Virtual)
March 2022	Analysis and Geometry Seminar, Columbia University
Feb. 2022	Analysis Webinar, University of Leeds (Virtual)
Jan. 2022	Analysis and PDE Seminar, Universidad Autónoma de Madrid (Virtual)
Dec. 2021	Colloquium, Rice University
Nov. 2021	Calderon-Zygmund Seminar, University of Chicago (Virtual)
Nov. 2021	Analysis Seminar, UT Austin
Nov. 2021	MATH-IMS Joint Pure Mathematics Colloquium, Chinese University of Hong Kong (Virtual)
Nov. 2021	Colloquium, Rice University
Oct. 2021	Colloquium, University of South Carolina (Virtual)
Oct. 2021	Geometry/Topology Seminar, Stony Brook (Virtual)
Oct. 2021	Geometric Analysis Seminar, Rutgers (Virtual)
July 2021	Hua Luogeng's Forum, Institute of Mathematics, Chinese Academy of Sciences (Virtual, three-hour series of talks)
June 2021	Oberseminar Differential Geometry, University of Münster (Virtual)
April 2021	Oberseminar Analysis-Probability, Max Planck Institute, Leipzig (Virtual)
April 2021	Geometric Analysis Seminar, Cornell (Virtual)
March 2021	B.O.W.L. Online Geometry Seminar (Virtual)
March 2021	Harmonic Analysis, GMT, and PDE Seminar, University of Minnesota and University of Missouri (Virtual)
March 2021	Differential Geometry and Geometric Analysis Seminar, Princeton (Virtual)
Feb. 2021	PDE Seminar, Oxford (Virtual)
Feb. 2021	Geometric Analysis Seminar, UC San Diego (Virtual)
Feb. 2021	Geometric Analysis Seminar, University of Chicago (Virtual)
Feb. 2021	Analysis Seminar, University of Trento (Virtual)
Feb. 2021	Applied PDEs Seminar, Imperial College London (Virtual)
Feb. 2021	Topology and Geometry Seminar, Duke University (Virtual)
Feb. 2021	Colloquium, Purdue (Virtual)
Feb. 2021	Colloquium, Carnegie Mellon (Virtual)
Feb. 2021	Colloquium, Rutgers (Virtual)
Jan. 2021	Colloquium, UC Santa Cruz (Virtual)
Jan. 2021	Colloquium, University of Toronto (Virtual)
Jan. 2021	Analysis Seminar, Cal Tech (Virtual)
Dec. 2020	Colloquium, Texas A&M (Virtual)
Dec. 2020	Colloquium, Notre Dame (Virtual)
Nov. 2020	Webinários do PPGMat, UFRGS (Virtual)
Nov. 2020	Geometric Analysis Seminar, CUNY (Virtual)

Oct. 2020 PDE/Analysis Seminar, University of Minnesota (Virtual)
Oct. 2020 Analysis Seminar, Georgia Tech (Virtual)
Dec. 2019 Geometry Seminar, University of Notre Dame
Nov. 2019 Colloquium, University of Pennsylvania
Sept. 2019 PDE/Applied Math Seminar, Indiana University
Sept. 2019 PDE Seminar, Brown University
Aug. 2019 Departmental Seminar, Duke University
April 2019 Geometry and Analysis Seminar, Columbia University
April 2019 Analysis Seminar, University of Pennsylvania
April 2019 Nonlinear Analysis Seminar, Rutgers University
Feb. 2019 Variational Methods in Geometry Seminar, Institute for Advanced Study
Feb. 2019 Analysis Seminar, Princeton University
Jan. 2019 Geometric Analysis Seminar, University of Tennessee
April 2018 SEDNOL Seminar, Universidad Nacional Autónoma de MÃĽxico
March 2018 Analysis Seminar, Michigan State University
Jan. 2018 Geometric Analysis Seminar, University of Chicago
Nov. 2017 Rainwater Seminar, University of Washington
Oct. 2017 Analysis Seminar, Johns Hopkins University
Oct. 2017 CAMP Seminar, University of Chicago
April 2017 Geometry and Analysis Seminar, Columbia University
March 2017 Analysis Seminar, University of Florence
Feb. 2017 Analysis Seminar, University of Modena and Reggio Emilia
Jan. 2017 Analysis Seminar, Northwestern University
Jan. 2016 CNA Seminar, Center for Nonlinear Analysis, Carnegie Mellon University
Dec. 2015 PDE Seminar, Purdue University
Nov. 2015 Analysis Seminar, University of Modena and Reggio Emilia
Oct. 2015 Analysis Seminar, École Normale Supérieure de Lyon
Sept. 2014 Analysis Seminar, ETH Zürich
June 2014 Seminar for Elliptic PDEs, Weierstrauss Institute, Berlin

Mini-Courses

July 2024 **Instructor**, Stability of Geometric Inequalities and Applications.
Six-hour mini-course at Summer School on Geometric Analysis and PDEs at Bedlewo Conference Center in Poland.

June 2023 **Instructor**, Shape Optimization: From Soap Films to Acoustics.
Three-hour mini-course aimed at undergraduate STEM students at CMU Data Analytics for Science Immersion Experience (DASIE) Program.

June 2022 **Instructor**, Shape Optimization: From Soap Films to Acoustics to Crystals.
Three-hour mini-course aimed at undergraduate STEM students at CMU Data Analytics for Science Immersion Experience (DASIE) Program.

May 2022 **Instructor**, Scalar Curvature: Structure and Regularity.
Two-hour mini-course aimed at graduate students at Rutgers University Geometric Analysis Conference.

May 2022 **Instructor**, An Introduction to d_p Convergence of Riemannian Manifolds.
Three-hour mini-course aimed at researchers at CMSA Workshop on Scalar Curvature, Minimal Surfaces, and Initial Data Sets.

May 2019 **Teaching Assistant**, Ancient Solutions to Geometric Flows.
Mini-course aimed at graduate students taught by P. Daskalopoulos, Topics in Geometric Analysis Summer School for Women in Mathematics, Institute for Advanced Study.

Teaching

Carnegie Mellon University

Spring 2026 **Instructor**, Geometric and Functional Inequalities and Applications (graduate topics course).

Fall 2025 **Instructor**, Introduction to Differential Equations.

Spring 2025 **Instructor**, Differential Geometry.

Fall 2024 **Instructor**, Introduction to Differential Equations.

Spring 2024 **Instructor**, Regularity for Minimal Surfaces (graduate topics class).

Fall 2023 **Instructor**, Introduction to Differential Equations.

Spring 2023 **Instructor**, Real Analysis.

Spring 2022 **Instructor**, Real Analysis.

Fall 2021 **Instructor**, Differential Geometry of Curves and Surfaces.

Northwestern University

Spring 2021 **Instructor**, Optimal Transport and Applications (graduate topics class).

Spring 2021 **Instructor**, Elementary Differential Equations.

Fall 2020 **Instructor**, Introduction to Differential Geometry.

Winter 2020 **Instructor**, Foundations of Higher Mathematics.

Fall 2019 **Instructor**, Single-Variable Differential Calculus.

Winter 2018 **Instructor**, Differential Calculus of Multivariable Functions.

Fall 2017 **Instructor**, Integral Calculus of One-Variable Functions.

University of Texas at Austin

Spring 2016 **Teaching Assistant**, Integral and Multivariable Calculus.

Mentorship

2026- **Postdoc Mentor**, Carnegie Mellon University.
Postdoc Mentor for Y. Wu at CMU.

2025- **Postdoc Mentor**, Carnegie Mellon University.
Postdoc Co-Mentor for M. Rozowski at CMU.

2025- **Ph.D. Advisor**, Carnegie Mellon University.
Ph.D. Advisor for S. Zeitler at CMU.

2023-2026 **Postdoc Mentor**, Carnegie Mellon University.
Postdoc Mentor for R. Resende at CMU. Resende starts a tenure-track position at FSU in Fall 2026.

Summer 2023 **Summer Undergraduate Research Mentor**, Carnegie Mellon University.
Supervised undergraduate research for I. Jiang, an undergraduate math and physics student at CMU.

2021-22 **Reading and Research Course Supervisor**, Carnegie Mellon University.
Supervised reading and research course for Ph.D. student W. Caldwell.

Summer 2020 **REU Mentor**, University of Chicago Mathematics REU.
Served as the REU mentor for K. DeMason, an undergraduate who was an unofficial participant in the University of Chicago Mathematics REU.

Conference Organization

Fall 2028 **Co-organizer**, Semeter-Long Program on Geometric Measure Theory at SLMath.
With O. Chodosh, C. De Lellis, G. De Philippis, S. Mayboroda, L. Spolaor, and Z. Zhao

May 2027 **Co-organizer**, New Horizons in the Calculus of Variations and Its Applications at CMU.
With G. Leoni, M.G. Mora, M. Morini, and D. Slepcev

Jan. 2020 **Co-organizer**, Special Session "Interfaces between PDEs and Geometric Measure Theory" at Joint Mathematics Meetings (Denver, CO).
With Z. Zhao.

July 2018 **Co-organizer**, Special Session "Recent Advances in the Calculus of Variations and Elliptic PDE" at AIMS Conference on Dynamical Systems, Differential Equations and Applications (Taipei, Taiwan).
With C. Mooney.

Service

Internal Service at CMU

July 2026 **Panelist**, SUAMI Meet a Mathematician Event.

2025-26 **Committee Member**, Open-area tenure-track hiring committee.

2021- **Committee Member**, Graduate Program Committee.

2025- **Faculty Mentor**, Directed Reading Program, CMU.

2023- **Faculty Mentor**, SIAM Student Chapter, Carnegie Mellon University.

2025 **Committee Member**, Master's Thesis Defense for Robert Trosten, CMU.

2025 **Committee Member**, Ph.D. Thesis Defense for Wes Caldwell, CMU.

Jan. 2025 **Speaker**, Undergraduate Math Club, Carnegie Mellon University.

2024 **Committee Member**, Master's Thesis Defense for Nathaniel Glover, Carnegie Mellon University.

Sept. 2024 **Panelist**, EUREKA Faculty Panel for freshman MSC students, Carnegie Mellon University.

June 2024 **Panelist**, SUAMI Meet a Mathematician Event.

Spring 2023 **Organizer**, CNA Seminar, Carnegie Mellon University.

2022 **Chair**, Oral Exam for Wes Caldwell, Carnegie Mellon University.

External Service

Ongoing **Referee**, for the following journals (many several times).
Adv. Calc. Var.; Ann. SNS Pisa; Ann. Mat. Pura Appl.; AIHP C Anal. Non Linéaire; ARMA; CAG; Comm. PDE; CPAM; Geom. Dedicata; IMRN; JEMS; JDG; J. Geom. Anal.; J. Nonlinear Sci.; Memoirs of the AMS; Nonlinear Anal.; Rev. Mat. Iberoam.; SIAM J. Math. Anal.

2025- **Associate Editor**, Journal of Geometric Analysis.

2025 **Committee Member**, Ph.D. Thesis Defense for Ken DeMason, UT Austin.

2023 **Committee Member**, Ph.D. Thesis Defense for Reinaldo Resende, University of Sao Paolo.

April 2022 **Speaker**, Undergraduate Colloquium, Northwestern University.

Oct. 2021 **Panelist**, Impostor Syndrome Panel, Undergradaute Math Club, Carnegie Mellon University.

Oct. 2021 **Panelist**, "What is Research in Math?" Panel, Graduate Research Opportunities for Women (GROW).

Oct. 2021 **Speaker**, Undergraduate Math Club, Carnegie Mellon University.

Jan. 2021 **Judge**, AWM Poster Session, Joint Mathematics Meetings.

Oct. 2020 **Panelist**, Academic Job Panel, Northwestern University.

Oct. 2019 **IAS/PCMI Representative**, Modern Math Workshop (Satellite of SACNAS National Conference), Honolulu, HI.

Oct. 2019 **Panelist**, Academic Job Panel, Northwestern University.

2019–2020 **Faculty mentor**, Directed Reading Program, Northwestern University.

2019–2021 **Organizer**, Women in Math Program, Northwestern University.

2019–2020 **Committee Member**, Climate Committee, Northwestern University.
Postdoctoral representative for committee aimed at addressing departmental concerns.

2018–2019 **Co-organizer**, Women in Math Lunches, Institute for Advanced Study.
with A. Bucur.

Nov. 2018 **Speaker**, Mathematical Conversations, Institute for Advanced Study.