

Luca Fabrizio Di Cerbo

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Positions

Associate Professor, *University of Florida*, August 2023 - Present

Assistant Professor, *University of Florida*, August 2018 - July 2023

S.-S. Chern Senior Postdoctoral Fellow, *International Centre for Theoretical Physics (ICTP)*, September 2016 - September 2017

Visiting Assistant Professor, *Notre Dame University*, August 2014 - May 2015

Simons Postdoctoral Fellow, *Duke University*, August 2011 - July 2014

Research Visits

Stony Brook University, September 2017 - August 2018

Max Planck Institute for Mathematics (MPIM), June 2015 - May 2016

Education

Ph.D. Mathematics, *Stony Brook University*, NY, USA

September 2006-May 2011

Thesis: *Aspects of the Seiberg-Witten equations on manifolds with cusps*

Advisor: Prof. Claude LeBrun

Laurea Specialistica (M. Sc.) summa cum laude in Mathematics, *University of Rome "La Sapienza"*, Italy

September 2004-July 2006

Laurea Triennale (B. Sc.) summa cum laude in Physics, *University of Rome "La Sapienza"*, Italy

September 2001-November 2004

Honors, Awards, & Fellowships

American Mathematical Society, Meetings Child Care Grant, March 2023 and March 2024 (travel support).

University of Florida Office of Research, Project 00075235, 2021-2022 (conference support).

NSF DMS-2104662, Geometric Analysis Program. August 2021 - July 2025 (\$205,925).

University of Florida, **CLAS Scholar Faculty Mentor Award**, 2019-2020.

Speaker at the Arbeitstagung 2019, Max Planck Institute for Mathematics (MPIM), Bonn Germany, July 2019.

Mathematisches Forschungsinstitut Oberwolfach (MFO), **US Junior Oberwolfach Fellow**, July 2019.

International Centre for Theoretical Physics (ICTP), **S.-S. Chern Senior Postdoctoral Fellowship**, 2016-2017 (it included a € 4,000 Travel Grant over 1 year).

Max Planck Institute for Mathematics (MPIM), **Fellowship**, 2015-2016 (it included a € 1,000 Travel Grant over 1 year).

Duke University, **Simons Postdoctoral Fellowship**, 2011-2014 (from the Simons Foundation) (**after institutional overhead** approximately \$225,000 Salary plus \$21,000 Travel Grant over 3 years).

SUNY Stony Brook, **Renaissance Technologies Fellowship** (from the Simons Foundation), 2006-2009 (\$21,000 over 3 years on top of regular TA salary).

Institut Henri Poincaré (IHP), **Marie Curie Fellowship** (From the European Commission), April-June, 2008 (€ 5,400 over 3 months).

SUNY Stony Brook, Research Assistantship plus Tuition Scholarship, 2010-2011 (\$7,000 over 1 year on top of TA salary).

SUNY Stony Brook, Research Fellowship, 2009-2010 (\$7,000 over 1 year on top of TA salary).

SUNY Stony Brook, Teaching Assistantship with half duties plus Tuition Scholarship, 2006-2010.

University of Rome "La Sapienza", Tuition Scholarship and Undergraduate Fellowship, 2004-2006 (€ 8,000 fellowship over 2 years).

University of Perugia, Scholarship, summer 2004.

University of Rome "La Sapienza", Tuition Scholarship and Undergraduate Fellowship, 2001-2004 (€ 12,000 fellowship over 3 years).

Research

Books

1. (with L. Maxim) *Geometry and Topology of Aspherical Manifolds*. To appear in the **Contemporary Mathematics (CONM)** book series of the American Mathematical Society (AMS) in Spring 2025.

Publications

1. (with M. Hull) *Generalized Graph Manifolds, Residually Finiteness, and the Singer Conjecture*. To appear in **Contemp. Math.** (2025), arXiv:2108.09236v4[math.DG] (28 pages).
2. (with M. Stern) *On the Betti Numbers of Finite Volume Hyperbolic Manifolds*. To appear in **J. Differential Geom.**, arXiv 2009.11431v3[math.DG] (56 pages).
3. (with M. Stern) *Harmonic Forms, Price Inequalities, and Benjamini-Schramm Convergence*. **J. Geom. Analysis** **35** (2025), no. 1, Paper No. 16 (26 pages).
4. (with L. Lombardi) *Singer Conjecture for Varieties with Semismall Albanese Map and Residually Finite Fundamental Group*. To appear in **Proc. Roy. Soc. Edinburgh Sect. A.** (2024) DOI:10.1017/prm.2024.52 (7 pages).
5. (with M. Albanese) *Aspherical 4-Manifolds, Complex Structures, and Einstein Metrics*. **J. Geom. Analysis** **34** (2024), no. 7, Paper No. 193 (8 pages).
6. (with R. Pardini) *On the Hopf Problem and a Conjecture of Liu-Maxim-Wang*. **Expo. Math** **42** (2024), no. 2, 125543 (10 pages).
7. *Extended Graph 4-Manifolds, and Einstein Metrics*. **Ann. Math. Qué.** **48** (2024), no. 1, 269-276

8. (with L. Lombardi) L^2 -Betti Numbers and Convergence of Normalized Hodge Numbers via the Weak Generic Nakano Vanishing Theorem. **Ann. Inst. Fourier (Grenoble)** **74** (2024), no. 1, 423-449.
9. (with M. Golla) On the impossibility of four-dimensional complex-hyperbolic Einstein Dehn filling. **Proc. Amer. Math. Soc.** **151** (2023), no. 1, 281-294.
10. (with M. Stern) Price inequality and Betti numbers growth on manifolds without conjugate points. **Comm. Anal. Geom.** **30** (2022), no. 2, 297-334.
11. (with L. Lombardi) Moving Seshadri constants, and coverings of varieties with maximal Albanese dimension. **Asian J. Math.** **25** (2021), no. 2, 305-320.
12. On the Boundary Injectivity Radius of Buser-Colbois-Dodziuk-Margulis Tubes. **Ann. Global Anal. Geom.** **59** (2021), no. 3, 285-295.
13. (with S. Taylor) Graph Theoretical Representation of Equity Indices and Their Centrality Measures. **Quant. Finance** **21** (2021), no. 4, 523-537. (Editor's choice for a "Feature" in its Issue)
14. (with M. Stover) Punctured spheres in complex hyperbolic surfaces and bielliptic ball quotient compactifications. **Trans. Amer. Math. Soc.** **372** (2019), no. 7, 4627-4646.
15. (with G. Di Cerbo) On Seshadri constants of varieties with large fundamental group. **Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)** **19** (2019), no. 1, 335-344.
16. (with G. Di Brino) Exceptional collections and the bicanonical map of Keum's fake projective planes. **Commun. Contemp. Math.** **20** (2018), no. 1, 1650066 (13 pages).
17. (with M. Stover) Classification and arithmeticity of toroidal compactifications with $3\bar{c}_2 = \bar{c}_1^2 = 3$. **Geom. Topol.** **22** (2018), no. 4, 2465-2510.
18. The Toledo invariant, and Seshadri constants of fake projective planes. **J. Math. Soc. Japan** **69** (2017), no. 4, 1601-1610.
19. (with M. Stover) Bielliptic ball quotient compactifications and lattices in $PU(2, 1)$ with finitely generated commutator subgroup. **Ann. Inst. Fourier (Grenoble)** **67** (2017), no. 1, 315-328.
20. (with G. Di Cerbo) On the canonical divisor of smooth toroidal compactifications. **Math. Res. Lett.** **24** (2017), no. 4, 1005-1022.
21. (with M. Stover) Multiple realizations of varieties as ball quotient compactifications. **Michigan Math. J.** **65** (2016), no. 2, 441-447.
22. (with G. Di Cerbo) Effective results for complex hyperbolic manifolds. **J. London Math. Soc.** **91** (2015), no. 1, 89-104.
23. (with G. Di Cerbo) Positivity in Kähler-Einstein theory. **Math. Proc. Cambridge Philos. Soc.** **159** (2015), no. 2, 321-338.
24. (with G. Di Cerbo) A sharp cusp count for complex hyperbolic surfaces and related results. **Arch. Math. (Basel)** **103** (2014), no. 1, 75-85.
25. On Kähler-Einstein surfaces with edge singularities. **J. Geom. Phys.** **86** (2014), 414-421.
26. Generic properties of homogeneous Ricci solitons. **Adv. Geom.** **14** (2014), no. 2, 225-237.
27. Seiberg-Witten equations on surfaces of logarithmic general type. **Internat. J. Math.** **24** (2013), no. 3, 1350074 (23 pages).
28. Finite-volume complex-hyperbolic surfaces, their toroidal compactifications, and geometric applications. **Pacific J. Math.** **255** (2012), no. 2, 305-315.

29. *Finite-volume complex surfaces without cuspidal Einstein metrics.* **Ann. Global Anal. Geom.** **41** (2012), no. 3, 371-380.
30. *Seiberg-Witten equations on certain manifolds with cusps.* **New York J. Math.** **17** (2011), 491-512.
31. *A gap property for the growth of closed 3-manifold groups,* **Geom. Dedicata** **143** (2009), 193-199.
32. (with M. Disconzi) *Yamabe solitons, determinant of the Laplacian and the uniformization theorem for Riemann surfaces.* **Lett. Math. Phys.** **83** (2008), 13-18.
33. *Eigenvalues of the Laplacian under the Ricci flow.* **Rend. Mat. Appl. (7)** **27**, (2007), no. 2, 183-195.
34. (with F. Calogero and R. Droghei) *On isochronous Shabat-Yamilov-Toda lattices: equilibrium configurations, behavior in their neighborhood, Diophantine relations and conjectures.* **Phys. Lett. A** **355** (2006), 262-270.
35. (with F. Calogero and R. Droghei) *On isochronous Bruschi-Ragnisco-Ruijsenaars-Toda lattices: equilibrium configurations, behavior in their neighborhood, Diophantine relations and conjectures.* **J. Phys. A: Math. Gen.** **39** (2006), 313-325.

Papers submitted and preprints

1. *A rigidity theorem for Einstein 4-manifolds with semi-definite sectional curvature, and its consequences,* arXiv2503.01779v1[math.DG].
2. (with A. Dranishnikov and E. Jauhari) *Curvature, Macroscopic Dimensions, and Symmetric Products of Surfaces,* arXiv2503.01779v2[math.GT].
3. (with M. Albanese and L. Lombardi) *Aspherical Complex Surfaces, the Singer Conjecture, and Gromov Inequality $\chi \geq |\sigma|$,* arXiv.2311.03129v1[math.DG].
4. (with M. Golla) *The signature of geometrically decomposable 4-manifolds,* arXiv:2306.15501v1[math.DG].

Graduate Students Supervision

Hayden Hunter - *May 2020 - May 2024*, **UF Mathematics Graduate Student**. Thesis Title: On Higher Milnor Frames. First paper in **J. Lie Theory**. He is currently a Visiting Assistant and Teaching Professor at **Florida International University (FIU)**.

Aaron Thrasher - *February 2022 - Present*, **UF Mathematics Graduate Student**, *4th year*. Advanced to candidacy on November 2023. Expected graduation, May 2025.

Undergraduate Students Supervision (Selected)

Madeline Berryman-Dages - *April 2024 - Present*, **UF Mathematics Student**.

Erik Shute - *April 2023 - May 2024*, **UF Honors Student**. Honors Thesis Title: Pseudospherical Surfaces and the Sine-Gordon Equation. He is currently a graduate student in mathematics at the **University of Florida**.

Benjamin Sherwin - *May 2022 - May 2023*, **UF Mathematics and Physics Student**. He took a reading class under my direction and he attended two of my classes. He is a graduate student in astrophysics at **Stanford University** and a **NSF Graduate Research Fellow**.

Christopher Vairogs - *May 2021 - May 2022*, **UF Honors Student**. Honors Thesis Title: Hilbert's Theorem in Differential Geometry. He is currently a graduate student in physics at the **University of Illinois Urbana-Champaign**.

Kenneth DeMason - *August 2018 - May 2020*, **UF Honors Student**. Honors Thesis Title: The Gauss-Bonnet Theorem Revisited. During the academic year 2019-2020, he was supported by a **CLAS scholar award** (\$2500). He is currently a graduate student in mathematics at **UT Austin** partially supported by a **Provost's Graduate Excellence Fellowship** (5 years) and a **NSF Graduate Research Fellowship**.

Farnaz Ghanbari - *Spring / Summer 2017*, **ICTP Diploma Student**. Thesis Title: Introduction to General Relativity and Positive Energy Theorem (supervised jointly with C. Arezzo). She is currently a graduate student at Tarbiat Modares University and a STEP fellow at ICTP.

Service to the Department

Department of Mathematics, **University of Florida**, Gainesville, USA.

August 2024 - Present. First year mentor for graduate students Erik Shute and Maguette Beye.

August 2023 - Present. Chair PhD Examination Committee on Differential Geometry.

August 2023 - July 2024. Hiring Plan Committee.

November 2022 - Present. Web-master for the Topology Group.

August 2022 - July 2024. Graduate Selection Committee.

August 2022 - Present. PhD Examination Committee on Complex Analysis.

August 2021 - July 2022. First year mentor for graduate student Himanshu Yadav.

May 2021. Commencement Marshal.

August 2020 - July 2024. Math Club Advisors Committee.

August 2020 - July 2022. Colloquium, Conferences, Visitors, and Travel Committee.

August 2020 - July 2023. Honors Program Committee.

August 2020 - July 2022. Computer Committee.

August 2020 - July 2022. Member of the Steering Committee.

August 2020 - July 2022. Chair PhD Examination Committee on Complex Analysis.

March 2020. Member of a PhD Defense Committee serving as a substitute for Prof. J. Keesling.

August 2019 - July 2023. PhD Examination Committee on Differential Geometry.

August 2019 - July 2020. Visiting Assistant Professor Search Committee.

August 2019 - May 2020. Mentor for VAP Dr. Matthew Wheeler.

May 2019. Commencement Marshal.

January 2019 - Present - Doctoral Committee member for the following students: Alexander Elchesen (graduated), Yi Gu (graduated), Andrew Kriehn (graduated), Dixi Wang (graduated), Andres Zuniga, Rishabh Sarma, Dario Teran, Nursultan Kuanyshov, Zhumagali Shomanov, Himanshu Yadav, Aditya De Saha, Yue Huang, Arya Memana, Jeremiah Anglin (from the Department of Physics), Gianfranco Cortes (from the Department of Computer & Information Science & Engineering).

August 2018 - July 2019. Library Committee.

August 2018 - July 2019. Colloquium, Conferences, Visitors, and Travel Committee.

August 2018 - July 2019. Computer Committee.

August 2018 - July 2019. Visiting Assistant Professor Search Committee.

Mathematics Section, **International Centre for Theoretical Physics**, Trieste, Italy.

September 2017 - Contributed to the writing of the ICTP Entrance Diploma Exam for the 2017/2018 Class.

January - February 2017 - Served on the ICTP Selection Committee for the 2017/2018 Diploma Student Class.

September 2016 - Served on the ICTP Entrance Exam Committee for the 2016/2017 Diploma Student Class.

Teaching Experience

Department of Mathematics, **University of Florida**, FL.

Instructor for both Graduate and Undergraduate Classes

Spring 2025 - MAT 7979 & MAT 7980 – Advanced research for graduate students & Research for Doctoral Dissertation (2 students)

Fall 2024 - MAT 7980 – Research for Doctoral Dissertation (1 student)

Spring 2024 - MTG 6257 & MAT 4930 - Differential Geometry II (Graduate Level Course) (18 students)

Fall 2023 - MTG 6256 & MAT 4930 - Differential Geometry I (Graduate Level Course) (29 students)

Fall 2023 - MAA 4402 & MAA 5404 - Functions Complex Variable (35 students)

Summer 2023 - MAT 4911, MAT 7979 & MAT 7980 (3 students)

Spring 2023 - MAT 6932 - Geometric Analysis II (14 students)

Fall 2022 - MAT 6932 & MAT 4930 - Geometric Analysis (17 students)

Summer 2022 - MAT 6905 & MAT 4905 - Reading Course on Harmonic Functions (4 students)

Spring 2022 - MAC 2313 - Calculus 3 (over 200 students)

Spring 2022 - MAA 4402 & MAA 5404 - Functions Complex Variable (24 students)

Spring 2022 - MAT 4905 - Reading Course on Geometry (1 student)

Fall 2021 - MAA 4402 & MAA 5404 - Functions Complex Variable (28 students)

Fall 2021 - MAT 4905 - Reading Course on Geometry (1 student)

Spring 2021 - MAA 6407 - Complex Analysis 2 (Graduate Level Class) (16 students)

Spring 2021 - MAT 4911 - Undergraduate Supervised Research (1 students)

Fall 2020 - MAA 6406 & MAT 4930 - Complex Analysis 1 (Graduate Level Class) (19 students)

Summer 2020 - MAT 6905 – Reading Course on Differential Geometry (1 student)

Spring 2020 - MTG 6256 & MAT 4930 - Differential Geometry II (Graduate Level Course) (5 students)

Fall 2019 - MTG 6256 & MAT 4930 - Differential Geometry I (Graduate Level Course) (18 students)

Summer 2019 - MAT 4905 - Reading Course on Curves and Surfaces (1 student)

Spring 2019 - MAC 2313 - Calculus 3 (over 200 students)

Fall 2018 - MAC 2313 - Calculus 3 (over 200 students)

Department of Mathematics, **Stony Brook University**, NY.

Instructor for Undergraduate Classes

Spring 2018 - MAT 126, Calculus B

Fall 2017 - MAT 132, Calculus II

Mathematics Section, **International Centre for Theoretical Physics** (ICTP).

Instructor for both Graduate and Undergraduate Classes

Summer 2017 - ICTP - EAUMP School on Modern Functional Analysis, Nairobi - Kenya:
The Laplacian on Riemannian Manifolds (jointly with C. Arezzo)

Fall 2016 - Diploma Course: Curves and Surfaces (Single Instructor)

Fall 2016 - Weekly Reading Course: Symplectic Geometry (jointly with C. Arezzo)

Department of Mathematics, **Notre Dame University**, IN.

Instructor for Undergraduate Classes

Spring 2015 - MAT 10360, Calculus B

Spring 2015 - MAT 20580, Introduction to Linear Algebra and Differential Equations

Fall 2014 - MAT 10250, Elements of Calculus I

Fall 2014 - MAT 10350, Calculus A for the Life and Social Sciences

Department of Mathematics, **Duke University**, NC.

Instructor for both Graduate and Undergraduate Classes

Spring 2014 - MAT 790-90.05, Positive Currents and Lelong Numbers (Advanced Graduate Level Class)

Fall 2013 - MAT 625.01, Riemann Surfaces (Graduate Level Course)

Spring 2013 - MAT 633.01, Complex Analysis (Graduate Level Course)

Spring 2012 - MAT 790-03.02, Theorems of Bombieri and Reider (Advanced Graduate Level Class)

Fall 2011 - MAT 353.02, Ordinary and Partial Differential Equations

Department of Mathematics, **Stony Brook University**, NY.

Teaching Assistant for Undergraduate Classes

Spring 2011 - MAT 303, Calculus IV with Applications

Fall 2010 - MAT 123, Introduction to Calculus

Spring 2010 - MAT 205, Calculus III

Fall 2009 - MAT 132, Calculus II

Spring 2009 - MAT 305, Calculus IV

Fall 2008 - MAT 126, Calculus B

Spring 2008 - MAT 126, Calculus B

Fall 2007 - MAT 132 Calculus II

Spring 2007 - MAT 126 Calculus B

Fall 2006 - MAT 125 Calculus A (Grader)

Colloquia, Conference and Workshop Presentations

1. *Joint Meeting of the New Zealand, Australian and American Mathematical Societies, University of Auckland, New Zealand*, December 9-13, 2024 (50 minutes talk).

2. *American Mathematical Society Southeastern Sectional Meeting "Recent Advances in Geometry and Topology"*, **Florida State University**, March 24th, 2024.
3. *Colloquium*, **University of Milan, Italy**, May 11th, 2023.
4. *American Mathematical Society Southeastern Sectional Meeting "Singer-Hopf Conjecture in Geometry and Topology"*, **Georgia Tech**, March 18th, 2023.
5. *Colloquium*, **UNC Greensboro**, December 1st, 2021.
6. *Conference "Canonical Metrics and Connections on Kähler Manifolds and Vector Bundles" – International Centre for Theoretical Sciences – TIFR, Bengaluru India*, August 3rd - August 14th 2020 (Canceled because of COVID-19)
7. *Conference "Arbeitstagung 2019 on Geometry"*, **Max Planck Institute for Mathematics, Bonn Germany**, July 8th - July 12th, 2019.
8. *Conference "Surfaces quotient de la boule unité et réseaux de $PU(2; 1)$ "*, **CIRM - Luminy, France**, February 25th - March 1st, 2019.
9. *Conference "UF/FSU Topology and Geometry Meeting"*, **Tallahassee, Florida**, February 8-9, 2019.
10. *Colloquium*, **University of Florida**, February 2nd, 2018.
11. *Colloquium*, **University of Kansas**, January 23th, 2018.
12. *Colloquium*, **UC Riverside**, January 19th, 2018.
13. *Colloquium*, **Centre for Quantum Geometry of Moduli Spaces (Aarhus University)**, May 26th, 2017.
14. *Special Colloquium*, **Stockholm University**, September 26th, 2016.
15. *Conference on Differential Geometry celebrating Claude LeBrun's 60th birthday*, **Montréal, Canada**, July 5-9, 2016.
16. *Oberseminar*, **Max Planck Institute for Mathematics**, August 6th, 2015.
17. *Colloquium*, **Queens College CUNY**, April 27th, 2015.
18. *Colloquium*, **Queen's University, Canada**, February 4th, 2015.
19. *Colloquium*, **University of Arizona**, January 21st, 2015.
20. *Colloquium*, **UC Davis**, December 15th, 2014.
21. *Conference "Giornate di Geometria Algebrica e Argomenti Correlati"*, **Torino, Italy**, June 7th, 2014.
22. *Conference "Geometria Algebrica nella Capitale"*, **Rome, Italy**, July 5th, 2013.
23. *Conference "Algebraic & Hyperbolic Geometry-New Connections"*, **Cabo Frio, Brazil**, June 18th, 2013.
24. *American Mathematical Society Eastern Sectional Meeting "Complex Geometry and Microlocal Analysis"*, **Boston College**, April 6th, 2013.
25. *Shanks Workshop "Kähler geometry on the edge"*, **Vanderbilt University**, March 22nd, 2013.
26. *Simons Postdoctoral Fellows Meeting*, **Simons Center for Geometry and Physics**, April 11th, 2012.
27. *Conference "Progressi Recenti in Geometria Reale e Complessa"*, **Levico Terme (Trento), Italy**, October 20th, 2010.

Seminars

1. *Geometry and Topology Seminar*, **Duke University**, February 3rd, 2025.
2. *Geometry Seminar*, **University of Roma Tre, Italy**, October 3rd, 2024.
3. *Topology and Dynamics Seminar*, **University of Florida**, April 2nd, 2024.
4. *Topology and Dynamics Seminar*, **University of Florida**, November 7th, 2023.
5. *Cogent Seminar*, **Europe-USA**, Online International Seminar, March 27th, 2023 (Canceled).
6. *Geometry-Topology Seminar*, **Georgia Tech**, March 17th, 2023.
7. *Geometry-Topology Seminar*, **University of Waterloo**, March 9th, 2023.
8. *Topology and Dynamics Seminar*, **University of Florida**, February 14th, 2023.
9. *Topology and Dynamics Seminar*, **University of Florida**, November 1st, 2022.
10. *Geometry-Topology Seminar*, **Stony Brook University**, April 28th, 2022.
11. *Geometry-Topology Seminar*, **Duke University**, April 18th, 2022.
12. *Topology and Dynamics Seminar*, **University of Florida**, February 22nd, 2022.
13. *Topology and Dynamics Seminar*, **University of Florida**, January 25th, 2022.
14. *Topology and Singularities Seminar*, **University of Wisconsin-Madison**, December 13th, 2021.
15. *Geometry-Topology Seminar*, **Yau Mathematical Sciences Center, Tsinghua University**, November 4th, 2021 (Via Zoom).
16. *Topology and Dynamics Seminar*, **University of Florida**, November 2nd, 2021.
17. *Oberseminar Differential Geometry*, **University of Münster**, June 14th, 2021 (Via Zoom).
18. *Topology and Dynamics Seminar*, **University of Florida**, February 23rd, 2021 (Via Zoom).
19. *Geometry Analysis Seminar*, **University of Maryland**, February 16th, 2021 (Via Zoom).
20. *Geometry-Topology Seminar*, **Duke University**, January 25th, 2021 (Via Zoom).
21. *Topology and Dynamics Seminar*, **University of Florida**, October 6th, 2020 (Via Zoom).
22. *Topology and Dynamics Seminar*, **University of Florida**, March 10th, 2020.
23. *Geometry-Topology Seminar*, **Michigan State University**, December 10th, 2019.
24. *University Math Club (outreach talk)*, **University of Florida**, November 18th, 2019.
25. *Topology and Dynamics Seminar*, **University of Florida**, October 8th, 2019.
26. *Topology and Dynamics Seminar*, **University of Florida**, April 9th, 2019.
27. *Graduate Mathematics Association Seminar*, **University of Florida**, September 26th, 2018.
28. *Topology and Dynamics Seminar*, **University of Florida**, September 18th, 2018.
29. *Topology and Dynamics Seminar*, **University of Florida**, September 11th, 2018.
30. *Geometric Analysis Seminar*, **CUNY Graduate Center**, December 7th, 2017.
31. *Geometry-Topology Seminar*, **Temple University**, October 25th, 2017.

32. *Algebraic Geometry Seminar*, **Washington University in St. Louis**, October 16th, 2017.
33. *Geometry-Topology Seminar*, **Stony Brook University**, October 10th, 2017.
34. *Geometry Seminar*, **Centre for Quantum Geometry of Moduli Spaces** (Aarhus University), May 26th, 2017.
35. *Geometry Seminar*, **Florence University**, May 24th, 2017.
36. *Geometry Seminar*, **Texas A&M University**, May 12th, 2017.
37. *Geometry-Topology Seminar*, **Stony Brook University**, May 9th, 2017.
38. *Geometry Seminar*, **University of Roma Tre**, April 20th, 2017.
39. *Geometric Analysis Seminar*, **ICTP-SISSA**, March 23rd, 2017.
40. *Geometry-Topology seminar*, **Warwick University**, November 3rd, 2016.
41. *Waterloo Geometry Summer School*, **Waterloo University**, June 30th, 2016.
42. *Waterloo Geometry Summer School*, **Waterloo University**, June 29th, 2016.
43. *Differential Geometry & Geometric Analysis Seminar*, **Max Planck Institute for Mathematics**, January 12th, 2016.
44. *General Mathematics Seminar*, **University of Luxembourg**, November 3rd, 2015.
45. *Felix Klein Seminar*, **Notre Dame University**, October 30th, 2014.
46. *Topology-Analysis-Geometry Seminar*, **Notre Dame University**, October 9th, 2014.
47. *Complex Geometry seminar*, **Columbia University**, April 3rd, 2014.
48. *Algebraic Geometry Seminar*, **Princeton University**, October 24th, 2013.
49. *Complex Geometry Seminar*, **John Hopkins University & University of Maryland**, October 22nd, 2013.
50. *Geometry-Topology Seminar*, **Stony Brook University**, September 24th, 2013.
51. *Geometry-Topology Seminar*, **Duke University**, March 19th, 2013.
52. *Geometry-Topology Seminar*, **Stony Brook University**, October 9th, 2012.
53. *Differential Geometry & Geometric Analysis Seminar*, **Princeton University**, October 5th, 2012.
54. *Geometry Seminar*, **University of Roma "La Sapienza"**, June 19th, 2012.
55. *Geometry Seminar*, **University of Roma "La Sapienza"**, June 14th, 2012.
56. *Topology Seminar*, **University of California at Riverside**, May 1st, 2012.
57. *Graduate-Faculty Seminar*, **Duke University**, January 20th, 2012.
58. *Geometry-Topology Seminar*, **Duke University**, December 6th, 2011.
59. *Symplectic and Differential Geometry Seminar*, **Vanderbilt University**, November 30th, 2011.
60. *Geometry-Topology Seminar*, **Duke University**, March 29th, 2011.
61. *Geometry Seminar*, **Simons Center for Geometry and Physics**, January 24th, 2011.
62. *Geometry-Topology Seminar*, **University of Pennsylvania**, January 12th, 2011.
63. *Geometry Seminar*, **University of Roma "La Sapienza"**, June 8th, 2010.
64. *Geometry Seminar*, **University of Roma "La Sapienza"**, June 7th, 2010.
65. *Graduate Student Seminar*, **Stony Brook University**, March 2010.
66. *Séminaire de jeunes mathématiciens (Organized by P. Pansu)*, **Institut Henri Poincaré**, May 2008.

Service to the Mathematical Community

Co-organizer, **AMS Special Session** on “Singer-Hopf Conjecture in Geometry & Topology” at the Southeastern Spring Sectional meeting, Georgia Institute of Technology, Atlanta, Georgia, GA March 18-19, 2023.

Organizer, **UF/FSU joint Topology & Geometry Meeting**, University of Florida, Gainesville, FL February 11-12, 2022.

Co-organizer, **AMS Special Session** on “Geometric Structures on Manifolds” at the Southeastern Sectional Meeting, University of Florida, Gainesville, FL November 2-3, 2019.

Co-organizer, **AMS Special Session** on “Geometry and Topology of Ball Quotients and Related Topics” at the Spring Eastern Sectional Meeting Hunter College, City University of New York, New York, NY May 6-7, 2017.

Co-organizer, **Geometry-Topology seminar**, Duke University, Fall 2011- Spring 2014.

Co-organizer, **27th Geometry Festival**, Duke University, April 27-29, 2012.

Referee for several journals. Since my arrival at UF, I submitted thirty-one referee reports and quick opinions to twenty-eight different journals.

Reviewer for funding agencies, since July 2019.

Book reviewer for Springer (2020 & 2022).

Outreach

June 19-23, 2023. Series of Special Lectures on Geometric Analysis for **ICTP Math Diploma Program**.

Memberships in the Profession

Summer 2022 - Present. Member of the American Mathematical Society.