### **Personal Information**

Current address: Courant Institute of Mathematical Sciences, New York University

251 Mercer St, New York, NY 10012

E-mail: tosatti@cims.nyu.edu

Member of: American Mathematical Society, Unione Matematica Italiana, European Mathematical Society, Italian Scientists and Scholars in North America Foundation.

# **Employment**

- Professor, Courant Institute of Mathematical Sciences, New York University 2022-
- Professor, McGill University, 2020–2022
- Professor, Northwestern University, 2015–2021 (on leave 2020–2021)
- Associate Professor, Northwestern University, 2012–2015
- Joseph Fels Ritt Assistant Professor, Columbia University, 2009–2012

#### Education

- Harvard University, USA 2004-2009. M.A. 2005, Ph.D. 2009
- University of Pisa, Italy 2000–2004. Laurea 2004
- Scuola Normale Superiore of Pisa, Italy 2000–2004. Diploma della Scuola 2004

#### **Awards and Honors**

- Prize Premio Internazionale Luigi Tartufari 2020, given by the Accademia Nazionale dei Lincei
- Prize Premio Renato Caccioppoli 2018, given by the Italian Mathematical Union
- Fellow of the American Mathematical Society, Class of 2019
- Plenary Speaker, XXI Congress of the Italian Mathematical Union, September 2019
- Invited Address, AMS Eastern Section Meeting, Northeastern University, April 2018
- 2017–18 Poincaré Chair, Institut Henri Poincaré and Clay Mathematics Institute
- Alfred P. Sloan Research Fellowship 2012–2014 (extended to 2016)
- 2011 Blavatnik Award for Young Scientists, given by the New York Academy of Sciences
- Prize Premio Giuseppe Bartolozzi 2009, given by the Italian Mathematical Union
- Harvard Merit Fellowship 2007–2008
- Prize Premio Franco Tricerri 2005, given by the Italian Mathematical Union

## Grants

- PI, NSF Grant DMS-2404599, Geometric Analysis and Complex Geometry, June 2024-May 2027.
- PI, NSF Grant DMS-2231783 (transferred from DMS-1903147), Geometric PDEs and Complex Geometry, Sept 2019-Aug 2024.
- PI, NSERC Discovery Grant and Accelerator Supplement, 2021–2022.
- PI, NSF Grant DMS-1610278, Geometric Analysis on Complex Manifolds, Sept 2016-Aug 2019.
- PI, NSF Grant DMS-1308988, Geometry and Analysis on Calabi-Yau and Hermitian Manifolds, Sept 2013-Aug 2016.
- PI, NSF Grant DMS-1236969 (transferred from DMS-1005457), PDE on Complex and Symplectic Manifolds, July 2010–June 2013.
- $\bullet$  Co-PI, NSF Conference Grant DMS–2401549, CRM The matic Program in Geometric Analysis, Apr 2024–Mar 2025.
- Co-PI, FRQNT Projet de recherche en équipe, 2021–2022.
- Co-PI, NSF Conference Grant DMS-1454077, Emphasis Year in Geometric Analysis at Northwestern University, Jan 2015–Dec 2015.
- Co-PI, NSF Conference Grant DMS-1301714, Great Lakes Geometry Conference 2013, Dec 12-Nov 13.
- Alfred P. Sloan Research Fellowship 2012–2014 (extended to 2016)

### Research Interests

• Research areas: complex and differential geometry, geometric analysis and PDEs, and their connections to algebraic geometry and dynamical systems.

### Publications and Preprints

- 73. A Cheng-Yau type estimate for the symplectic Calabi-Yau equation preprint 2024.
- 72. Collapsing immortal Kähler-Ricci flows (with H.-J. Hein and M.-C. Lee), preprint 2024.
- 71. The volume of a divisor and cusp excursions of geodesics in hyperbolic manifolds (with S. Filip and J. Lesieutre), preprint 2023.
- 70. Immortal solutions of the Kähler-Ricci flow to appear in Contemp. Math.
- 69. Semipositive line bundles and (1,1)-classes to appear in Acta Math. Sin. (Engl. Ser.)
- 68. Smooth asymptotics for collapsing Calabi-Yau metrics (with H.-J. Hein), Comm. Pure Appl. Math. 78 (2025), no.2, 382–499.
- 67. Special Kähler geometry and holomorphic Lagrangian fibrations (with Y. Li), C. R. Math. Acad. Sci. Paris 362 (2024), no.S1, 171–196.
- 66. Diameter bounds for degenerating Calabi-Yau metrics (with Y. Li), **J. Differential Geom.** 127 (2024), no.2, 603–614.
- 65. Gaps in the support of canonical currents on projective K3 surfaces (with S. Filip), **J. Geom. Anal.** 34 (2024), no.3, Paper No. 76, 14 pp.
- 64. Canonical currents and heights for K3 surfaces (with S. Filip), Camb. J. Math. 11 (2023), no.3, 699–794.
- 63. On the collapsing of Calabi-Yau manifolds and Kähler-Ricci flows (with Y. Li), **J. Reine Angew. Math.** 800 (2023), 155–192.
- 62. Leafwise flat forms on Inoue-Bombieri surfaces (with D. Angella), J. Funct. Anal. 285 (2023), no.5, Paper No. 110015.
- 61. The Chern-Ricci flow (with B. Weinkove), Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl. 33 (2022), no.1, 73–107.
- 60. Restricted volumes on Kähler manifolds (with T. Collins), Ann. Fac. Sci. Toulouse Math. 31 (2022), no.3, 907–947.
- 59. Kummer rigidity for K3 surface automorphisms via Ricci-flat metrics (with S. Filip), **Amer. J. Math.** 143 (2021), no.5, 1431–1462.
- 58. Morse-type integrals on non-Kähler manifolds (with S. Kołodziej), **Pure Appl. Math. Q.** 17 (2021), no.3, 991–1004.
- 57. The complex Monge-Ampère equation with a gradient term (with B. Weinkove), to appear in **Pure Appl. Math. Q.** 17 (2021), no.3, 1005–1024.
- 56. Ricci-flat metrics and dynamics on K3 surfaces Boll. Unione Mat. Ital. 14 (2021), no.1, 191–209.
- 55. Higher-order estimates for collapsing Calabi-Yau metrics (with H.-J. Hein), Camb. J. Math. 8 (2020), no.4, 683–773.
- 54. Geometry of twisted Kähler-Einstein metrics and collapsing (with M. Gross and Y. Zhang), Comm. Math. Phys. 380 (2020), no.3, 1401–1438.
- 53. Collapsing hyperkähler manifolds (with Y. Zhang), Ann. Sci. Éc. Norm. Supér. 53 (2020), no.3, 751–786.
- 52. Collapsing Calabi-Yau manifolds

  Surveys in Differential Competers 2018. Differential geometry. Calabi-Yau the
- Surveys in Differential Geometry 2018. Differential geometry, Calabi-Yau theory, and general relativity, 305–337, Surv. Differ. Geom., 23, Int. Press, Somerville, MA, 2020.
- 51. Hermitian metrics, (n-1, n-1) forms and Monge-Ampère equations (with B. Weinkove), **J. Reine Angew. Math.** 755 (2019), 67–101.
- 50. Pluricomplex Green's functions and Fano manifolds (with N. McCleerey), **Épijournal Geom. Algébrique** 3 (2019), Art. 9, 15pp.
- 49. The Monge-Ampère equation for non-integrable almost complex structures (with J. Chu and B. Weinkove), J. Eur. Math. Soc. (JEMS) 21 (2019), no.7, 1949–1984.

- 48. Orthogonality of divisorial Zariski decompositions for classes with volume zero **Tohoku Math. J.** 71 (2019), no.1, 1–8.
- 47. Smooth and rough positive currents (with S. Filip), Ann. Inst. Fourier (Grenoble) 68 (2018), no.7, 2981–2999.
- 46. KAWA lecture notes on the Kähler-Ricci flow Ann. Fac. Sci. Toulouse Math. 27 (2018), no.2, 285–376.
- 45. The Aleksandrov-Bakelman-Pucci estimate and the Calabi-Yau equation (with B. Weinkove), in Nonlinear Analysis in Geometry and Applied Mathematics, Part 2, 147–158, Harvard CMSA Ser. Math. 2, International Press, 2018.
- 44. Regularity of envelopes in Kähler classes Math. Res. Lett. 25 (2018), no.1, 281–289.
- 43. Nakamaye's Theorem on complex manifolds in Algebraic Geometry: Salt Lake City 2015. Part 1, 633–655, Proc. Sympos. Pure Math. 97.1, American Mathematical Society, 2018.
- 42. The Kähler-Ricci flow, Ricci-flat metrics and collapsing limits (with B. Weinkove and X. Yang), Amer. J. Math. 140 (2018), no.3, 653–698.
- 41. Finite time collapsing of the Kähler-Ricci flow on threefolds (with Y. Zhang), Ann. Sc. Norm. Super. Pisa Cl. Sci. 18 (2018), no.1, 105–118.
- 40.  $C^{1,1}$  regularity for degenerate complex Monge-Ampère equations and geodesics rays (with J. Chu and B. Weinkove), **Comm. PDE** 43 (2018), no.2, 292–312.
- 39. Gauduchon metrics with prescribed volume form (with G. Székelyhidi and B. Weinkove), **Acta Math.** 219 (2017), no.1, 181–211.
- 38. An extension of a theorem of Wu-Yau (with X. Yang), J. Differential Geom. 107 (2017), no.3, 573–579.
- 37. On the  $C^{1,1}$  regularity of geodesics in the space of Kähler metrics (with J. Chu and B. Weinkove), **Ann. PDE** 3 (2017), no.2, 3:15.
- 36. Uniqueness of  $\mathbb{CP}^n$  Expo. Math. 35 (2017), no.1, 1–12.
- 35. The Monge-Ampère equation for (n-1)-plurisubharmonic functions on a compact Kähler manifold (with B. Weinkove), **J. Amer. Math. Soc.** 30 (2017), no.2, 311–346.
- 34. Inoue surfaces and the Chern-Ricci flow (with S. Fang, B. Weinkove and T. Zheng), **J. Funct. Anal.** 271 (2016), no.11, 3162–3185.
- 33. The Calabi-Yau Theorem and Kähler currents
  Adv. Theor. Math. Phys. 20 (2016), no.2, 381–404.
- 32. Gromov-Hausdorff collapsing of Calabi-Yau manifolds (with M. Gross and Y. Zhang), Comm. Anal. Geom. 24 (2016), no.1, 93–113.
- 31. A singular Demailly-Păun theorem (with T. Collins), C. R. Math. Acad. Sci. Paris 354 (2016), no.1, 91–95.
- 30. Remarks on the collapsing of torus fibered Calabi-Yau manifolds (with H.-J. Hein), **Bull. Lond. Math. Soc.** 47 (2015), no.6, 1021–1027.
- 29. Kähler currents and null loci (with T. Collins), **Invent. Math.** 202 (2015), no.3, 1167–1198.
- 28. Families of Calabi-Yau manifolds and canonical singularities Int. Math. Res. Not. IMRN (2015), no.20, 10586–10594.
- 27. Infinite time singularities of the Kähler-Ricci flow (with Y. Zhang), **Geom. Topol.** 19 (2015), no.5, 2925–2948.
- 26.  $C^{2,\alpha}$  estimates for nonlinear elliptic equations in complex and almost complex geometry (with Y. Wang, B. Weinkove and X. Yang), Calc. Var. PDE 54 (2015), no.1, 431–453.
- 25. Non-Kähler Calabi-Yau manifolds Contemp. Math. 644 (2015), 261–277.
- 24. Collapsing of the Chern-Ricci flow on elliptic surfaces (with B. Weinkove and X. Yang), Math. Ann. 362 (2015), no.3-4, 1223–1271.

- 23. On the evolution of a Hermitian metric by its Chern-Ricci form (with B. Weinkove), **J. Differential Geom.** 99 (2015), no.1, 125–163.
- 22. Triviality of fibered Calabi-Yau manifolds without singular fibers (with Y. Zhang), Math. Res. Lett. 21 (2014), no.4, 905–918.
- 21. An extension theorem for Kähler currents with analytic singularities (with T. Collins), Ann. Fac. Sci. Toulouse Math. 23 (2014), no.4, 893–905.
- 20. The Chern-Ricci flow on complex surfaces (with B. Weinkove), Compos. Math. 149 (2013), no.12, 2101–2138.
- 19. Collapsing of abelian fibred Calabi-Yau manifolds (with M. Gross and Y. Zhang), **Duke Math. J.** 162 (2013), no. 3, 517–551.
- 18. Blowup behavior of the Kähler-Ricci flow on Fano manifolds Univ. Iagel. Acta Math. 50 (2012), 117–126.
- 17. Calabi-Yau manifolds and their degenerations Ann. N.Y. Acad. Sci. 1260 (2012), 8–13.
- 16. Plurisubharmonic functions and nef classes on complex manifolds (with B. Weinkove), **Proc. Amer. Math. Soc.** 140 (2012), no. 11, 4003–4010.
- 15. The K-energy on small deformations of constant scalar curvature Kähler manifolds in Advances in Geometric Analysis, 139–150, Adv. Lect. Math. (ALM) 21, 2012.
- 14. Kähler-Einstein metrics on Fano surfaces Expo. Math. 30 (2012), no.1, 11–31.
- 13. Regularity of weak solutions of a complex Monge-Ampère equation (with G. Székelyhidi), Anal. PDE 4 (2011), no.3, 369-378.
- 12. Degenerations of Calabi-Yau metrics
  - Acta Phys. Polon. B Proc. Suppl. 4 (2011), no.3, 495–505.
- 11. The Calabi-Yau equation on the Kodaira-Thurston manifold (with B. Weinkove), **J. Inst. Math. Jussieu** 10 (2011), no.2, 437–447.
- 10. The Calabi-Yau equation, symplectic forms and almost complex structures (with B. Weinkove), in Geometry and Analysis, Vol. I, 475–493, Adv. Lect. Math. (ALM) 17, 2011.
- 9. The complex Monge-Ampère equation on compact Hermitian manifolds (with B. Weinkove), J. Amer. Math. Soc. 23 (2010), no.4, 1187-1195.
- 8. Estimates for the complex Monge-Ampère equation on Hermitian and balanced manifolds (with B. Weinkove), Asian J. Math. 14 (2010), no.1, 19–40.
- 7. Adiabatic limits of Ricci-flat Kähler metrics
  - J. Differential Geom. 84 (2010), no.2, 427–453.
- 6. Kähler-Ricci flow on stable Fano manifolds
  - J. Reine Angew. Math. 640 (2010), 67–84.
- 5. Limits of Calabi-Yau metrics when the Kähler class degenerates
  - J. Eur. Math. Soc. (JEMS) 11 (2009), no.4, 755-776.
- 4. Taming symplectic forms and the Calabi-Yau equation (with B. Weinkove and S.-T. Yau), **Proc. London Math. Soc.** 97 (2008), no.2, 401-424.
- 3. A general Schwarz Lemma for almost-Hermitian manifolds Comm. Anal. Geom. 15 (2007), no.5, 1063-1086.
- 2. The Calabi flow with small initial energy (with B. Weinkove), Math. Res. Lett. 14 (2007), no.6, 1033-1039.
- 1. On the Critical Points of the E<sub>k</sub> Functionals in Kähler Geometry **Proc. Amer. Math. Soc.** 135 (2007), no.12, 3985-3988.

#### Selected Invited Talks

- 1. Simons Symposium on Algebraic, Complex, and Arithmetic Dynamics, Germany (June 2024)
- 2. Conference in memory of J.-P. Demailly, Grenoble, France (May 2024)
- 3. Conference Asymptotics in Complex Geometry in memory of Steve Zelditch, Northwestern (March 2024)
- 4. 8th Iberoamerican Congress on Geometry, Pucón, Chile (December 2023)
- 5. Conference in memory of N. Sibony, Orsay, France (December 2022)
- 6. Conference in honor of S. Kołodziej's 60<sup>th</sup> birthday, Jagiellonian University, Poland (June 2022)
- 7. Conference "Chern: a Great Geometer of the 20th century", Tsinghua University, China (October 2021)

- 8. Conference in honor of A. Zeriahi's retirement, Toulouse, France (June 2021)
- 9. Geometry & TACoS (February 2021)
- 10. Plenary Speaker, XXI Congress of the Italian Mathematical Union, Pavia, Italy (September 2019)
- 11. INdAM Day 2019, University of Bari, Italy (June 2019)
- 12. Conference in honor of S.-T. Yau's 70<sup>th</sup> birthday, Harvard University, USA (May 2019)
- 13. Invited Address, AMS Eastern Section Meeting, Northeastern University, USA (April 2018)
- 14. French-German conference on Algebraic Geometry, CIRM, Luminy, France (April 2018)
- 15. Conference in honor of J.-P. Demailly's 60<sup>th</sup> birthday, Grenoble, France (June 2017)
- 16. CMSA Colloquium, Harvard University, USA (December 2016)
- 17. Conference "Differential Geometry in the large", University of Florence, Italy (July 2016)
- 18. Nonlinear Equations Conference, CMSA, Harvard University, USA (April 2016)
- 19. Hausdorff-Kolloquium, University of Bonn, Germany (February 2016)
- 20. Colloquium, University of Michigan, USA (January 2016)
- 21. Colloquium, UCLA, USA (December 2015)
- 22. Geometric Analysis Colloquium, Fields Institute, Toronto, Canada (October 2015)
- 23. AMS Summer Institute in Algebraic Geometry, University of Utah, USA (July 2015)
- 24. Conference "60 years of Calabi conjecture", Tsinghua University, Beijing, China (August 2014)
- 25. Annual Undergraduate Prize Lecture, Northwestern University, USA (May 2013)
- 26. Conference "Analysis, Complex Geometry and Mathematical Physics", Columbia University (May 2013)
- 27. Colloquium, Stanford University, USA (February 2012)
- 28. 18<sup>th</sup> Southern California Geometric Analysis Seminar, UC San Diego, USA (February 2011)
- 29. Complex Geometry: A Conference Honoring Simon Donaldson, Northwestern, USA (October 2009)

### Minicourses and Lecture Series

- 1. School "Complex Analysis and Geometry", CIRM Levico and ICTP (June 2021)
- 2. Master Class, IHP, Paris, France (May 2019)
- 3. Meeting "Géométrie : échanges et perspectives", IHP, Paris, France (June 2018)
- 4. Workshop on degenerations of Calabi-Yau manifolds, IHP, Paris, France (May 2018)
- 5. School "Current developments and new directions in Kähler geometry", Notre Dame (June 2017)
- 6. School "Kähler Geometry: flows and limits", Universitè de Nantes, France (April 2017)
- 7. Minischool on Nonlinear Equations, Harvard University, USA (December 2016)
- 8. Summer School in Geometric Analysis, Northwestern University, USA (July 2015)
- 9. Komplex Analysis Winter School–KAWA 2015, Centro de Giorgi, Pisa, Italy (March 2015)
- 10. Mini-School on K-stability, Stony Brook, USA (December 2013)
- 11. Summer School in Complex Geometry, Rutgers, USA (August 2013)

### Visiting Positions

- Spring 2024 CMSA, Harvard University
- Spring 2020 Visiting Professor at Harvard University Department of Mathematics and CMSA
- March 2018-August 2018 Poincaré Chair at the Institut Henri Poincaré, Paris, France
- July 2017–September 2018 CMSA, Harvard University
- February-April 2016 CMSA, Harvard University
- August–September 2015 Simons Center for Geometry and Physics, Stony Brook University
- June 2010 US Junior Oberwolfach Fellow, MFO Oberwolfach, Germany

## Mentoring

- PhD students: Greg Edwards (with Ben Weinkove, Northwestern 2018 PhD), Nick McCleerey (Northwestern 2020 PhD), Junyu Cao (NYU 2024–), Wenrui Kong (NYU 2024–).
- Masters student at McGill: Max Chemtov (2021–22)
- $\bullet$  Postdoctoral/visitors mentoring: Junsheng Zhang (2025–), Marcin Sroka (2022–24), Man-Chun Lee (2019–21), Jian Xiao (2016–18), Yashan Zhang (2017), Jianchun Chu (2015–16, 2018–21), Xiaokui Yang (2012–15), Yu Wang (2013–14), Tao Zheng (2014–15), Shouwen Fang (2014)
- PhD Thesis defense committees: François Bacher (Lille, 2023), Simon Jubert (UQÀM, 2023), Stephanie Mui (Courant, 2023), Vadim Semenov (Courant, 2023), Kaiqi Yang (Courant, 2023), Jiuzhou Huang (McGill, 2022), Marcin Sroka (Jagiellonian, 2021), Fengrui Yang (McGill, 2021), Sebastián Olano (North-

western, 2020), Yu Wang (Northwestern, 2020), Jakob Hultgren (Chalmers, 2018), Tat Dat Tô (Toulouse, 2018), Lei Wu (Northwestern, 2017), Jian Xiao (Grenoble, 2016), Zhenan Wang (Northwestern, 2015), Riccardo Lena (SISSA, 2013), Xiangwen Zhang (McGill, 2012), Adam Jacob (Columbia, 2012).

• Undergraduate honors thesis supervised at Northwestern: Andrew Ahn (2015), Josiah Oh (2016).

# Teaching

At New York University

- 2024–2025: Topology I; Differential Geometry
- 2023–2024: Analysis
- 2022–2023: Differential Geometry I; Analysis

## At McGill University

- 2021–2022: Honours Analysis 3; Honours Complex Analysis
- 2020–2021: Honours Complex Analysis; Topics in Geometry and Topology

# At Northwestern University

- 2019–2020: Introduction to Differential Geometry; Fourier Analysis
- 2018–2019: Introduction to Differential Geometry; Topics in Geometry
- 2016–2017: Analysis; Introduction to Topology; Partial Differential Equations
- 2015–2016: Algebraic Geometry; Differential Geometry
- 2014–2015: Geometry/Topology; Introduction to Differential Geometry
- 2013–2014: Geometry/Topology
- 2012–2013: Differential Geometry; Partial Differential Equations; Calculus of Multivariable Functions

# At Columbia University

- 2011–2012: Complex Analysis and Riemann Surfaces I and II; Multivariable Calculus
- 2009–2010, 2010–2011: Multivariable Calculus

# At Harvard University

- 2020: Advanced Differential Geometry
- 2008–2009: Intensive Calculus
- 2007–2008: Multivariable Calculus
- 2006–2007: Algebraic Topology
- 2005–2006, 2006–2007: Multivariable Calculus

#### **Editorial Boards**

- Journal of Functional Analysis (2024-present)
- Journal of the American Mathematical Society (Associate Editor, 2024-present)
- Communications on Pure and Applied Mathematics (2023-present)
- Canadian Journal of Mathematics and Canadian Mathematical Bulletin (2021-present)
- Mathematische Zeitschrift (2021-present)
- Bollettino dell'Unione Matematica Italiana (2019-present)
- Pure and Applied Mathematics Quarterly (2018-present; Editor-in-Chief 2018-2022)
- Rendiconti del Circolo Matematico di Palermo (2018-present)
- Lecture Notes of the Unione Matematica Italiana (2013-present)
- Universitatis Iagellonicae Acta Mathematica (2012-2021)

## Service

- Referee for: Acta Mathematica, Annals of Mathematics, Inventiones Mathematicae, Journal of the AMS, Publications Mathématiques IHÉS and many others
- Reviewer for Math Reviews and Zentralblatt MATH.
- Grant Proposal Reviewer for NSF, Simons Foundation (USA), ERC (Europe), NSERC (Canada), DFG (Germany), SNF (Switzerland), BSF (US-Israel), FWF (Austria), PRIN, INdAM, SNS, CINECA (Italy), ANR (France), InterTalentum (Spain), RGC (Hong Kong), NCN (Poland).

## **Events Organization**

- Workshop "Complex Geometry and Dynamical Systems", MFO Oberwolfach (May 10–15, 2026).
- Workshop "Non-Archimedean methods in complex geometry" at AIM (November 10–14, 2025).
- Thematic Program on Geometric Analysis, Centre de Recherches Mathématiques (April–June 2024).

- Workshop on PDEs in Complex Geometry, Centre de Recherches Mathématiques (April 15–19, 2024).
- Summer School "Séminaire de Mathématiques Supérieures on Flows and Variational Methods in Riemannian and Complex Geometry: Classical and Modern Methods", CRM Montréal (June 3–14, 2024).
- Workshop on Current Trends in Geometric Flows, CRM Montréal (June 25–29, 2024).
- Conference "Analytic Methods in Complex Geometry", University of Münster (August 7–11, 2023).
- Workshop "Complex Geometry and Dynamical Systems", MFO Oberwolfach (September 4–10, 2022).
- Conference "Calabi-Yau and Geometry" at University of Rome "Sapienza" (May 29–June 1, 2019).
- Workshop "Nonlinear PDEs in real and complex geometry" at AIM (August 13–17, 2018).
- Workshop "Degenerations of Calabi-Yau manifolds" at Institut Henri Poincaré (May 14–16, 2018).
- Workshop "Young Geometric Analysts' Forum 2018" at TSIMF Sanya (January 2018).
- Summer school "Summer at Northwestern Analysis Program" at Northwestern University (July 2017).
- Workshop "Analytic Methods in Algebraic Geometry" at Northwestern University (March 18 2017).
- Workshop "Young Geometric Analysts' Forum 2017" at TSIMF Sanya (January 9–13, 2017).
- Workshop "The complex Monge-Ampère Equation" at AIM (August 15–19, 2016).
- Section "Geometric Partial Differential Equations" at AMS Meeting in Chicago (October 2–4, 2015).
- Program "Moduli spaces and singularities in algebraic and Riemannian geometry" at Stony Brook University (August 17–November 20, 2015).
- Workshop "Collapsing Calabi-Yau manifolds" at Stony Brook University (August 31–September 4, 2015).
- Emphasis Year in Geometric Analysis at Northwestern University (2014–15).
- Summer School in Geometric Analysis at Northwestern University (July 6–12, 2015).
- Workshop on Ricci curvature at Northwestern University (May 28–31, 2015).
- "Special Day on Analytic Methods in Algebraic Geometry" at Northwestern University (April 11, 2015).
- "Special Day on Complex Geometry and Analysis on real analytic Riemannian manifolds" at Northwestern University (February 21, 2015).
- "Special Day on Eigenfunctions of the Laplacian on Manifolds" Northwestern University (Oct 25, 2014).
- Conference "73rd Midwest PDE Seminar" at Northwestern University (May 10–11, 2014).
- Summer School in Complex Geometry at Rutgers University (August 12–18, 2013).
- Conference "Great Lakes Geometry Conference 2013" at Northwestern University (April 20–21, 2013).
- Section "Complex Geometry and PDE" at AMS Meeting in Akron, Ohio (October 20–21, 2012).
- Workshop "Special Day on Complex Geometry and PDE" at Columbia University (April 20, 2012).
- Workshop "Special Day on Complex Geometry and PDE" at Columbia University (October 21, 2010).
- Geometric Analysis and Topology Seminar at New York University (2022–present).
- Geometric Analysis Seminar at McGill University (2020–2022).
- Informal Complex Geometry Reading Seminar at Northwestern University (2012–2019).
- Informal Complex Geometry and PDE Seminar at Columbia University (2009–2012).