CURRICULUM VITAE

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1 Personal information

Born on September 14th 1971 in Vidin (Bulgaria)
Nationality : Bulgarian / Canadian.

2 Academic background

- **Undergraduate and M.Sc. degree** — University of Sofia, 1989–1994.
- **Ph.D. degree** — École Polytechnique (France), Title of the thesis "Le tenseur de Weyl d'une surface complexe hermitienne", 1997; Thesis supervisors: Paul Gauduchon and Oleg Muskarov
- **Postdoctoral experience** — Postdoctoral Fellow of the European Postdoctoral Institute (EPDI) jointly funded by the IHES (Paris) Max-Planck-Institut für Mathematik (Bonn) and the Isaac Newton Institute (Cambridge), 1998–2000.

3 Professional career

3.1 Distinctions

- Research Chair, Project "COCOSYM " of the program "Connect Talent" of the Région Pays de la Loire, France, (2021–2024).
- Research Prize "Expert" of the Faculty of Science, UQAM (2019).
- Lebesgue Chair (2017), University of Nantes, Distinguished lectures series in mathematics, https://www.lebesgue.fr
- NSERC DAS GRANT (2011), Natural Sciences and Engineering Research Council of Canada (NSERC), The Discovery Accelerator Supplements (DAS) award is described as "The DAS program provides substantial and timely additional resources to accelerate progress and maximize the impact of superior research programs".

3.2 Appointments

- Full Professor, Mathematics department, Université du Québec à Montréal (UQAM), since 2009.
- Professor, University of Nantes, 2022-2024.
- Associate Professor, Université du Québec à Montréal (UQAM), since 2003.
- Assistant Professor, Mathematics department, Université du Québec à Montréal (UQAM), since 2000.

- Member of the Institute of Mathematics and Informatics (IMI), Bulgarian Academy of Sciences, since 1997.
- Fellow of the European PostDoctoral Institute (EPDI), 1998–2000.

3.3 Visiting Appointments

- Visiting Research Professor, University of Nantes, 1 year, 2021-2022.
- University of Nantes, France: May 2017 (**Lebesgue Chair holder**).
- Institute of Mathematics and Informatics (IMI), Bulgarian Academy of Sciences: six months in 2006 and six months in 2016.
- University Aix-Marseille (France): 1 month Visiting Professor positions, June 2007, Juin 2014, and October 2016.
- Centre de Mathématiques Laurent Schwarz, École polytechnique, Paris: 3 moth Visiting Professor position October–December 2006; 1 moth Visiting Professor positions: November 2011 and December 2016.
- École Normale Supérieure de l'Ulm, Paris, 1 month Visiting Professor position, December 2011.
- Simons Center for Geometry and Physics (SCGP), Stony Brook, 1 moth Visiting position, Octobre 2011.
- IHES, Paris, Postdoc, 2 months in 1998 and 3 months in 2000.
- Oxford University, Postdoc, six months in 1999.
- University Roma-3 , Rome, Postdoc, 5 months in 1999.
- Max Planck Institut, Bonn, Postdoc, 5 moths in 2000.
- Centre de Mathématiques Laurent Schwarz, École polytechnique, Paris, Postdoc, 3 months in 1998 and 1 month in 2000.

4 Research

4.1 Publications

Most recent work submitted to peer reviewed journals.

1. V. Apostolov, A.Lahdili, E. Legendre, *From Kahler-Ricci solitons to Calabi-Yau Kahler cones*, arXiv:2412.02564.

2. V. Apostolov, G. Barbaro, K.-H. Lee, J. Streets, *The classification of non-Kahler Calabi-Yau geometries on threefolds*, arXiv:2408.09648.

3. V. Apostolov, J. Streets, Y. Ustinovskiy, *Formal structure of scalar curvature in generalized Kahler geometry*, arXiv:2404.14595.

Published or accepted articles in peer-reviewed journals.

4. V. Apostolov, A. Lahdili, Y. Nitta, *Mabuchi Kahler solitons versus extremal Kahler metrics and beyond* to appear in Bull. London Math. Soc. **57** (2025), 692–710 .

5. V. Apostolov, X. Fu, J. Streets, Y. Ustinovskiy, *The generalized Kahler Calabi-Yau problem*, to appear in Amer. J. Math., arXiv:2211.09104

6. V. Apostolov, C. Cifarelli, *Hamiltonian 2-forms and new explicit Calabi-Yau metrics and gradient steady Kahler-Ricci solitons on* $\mathbb{C}^n$, to appear in J. Differential Geom., arXiv:2305.15626.

7. V. Apostolov, J. Streets, Y. Ustinovskiy, *The Riemannian and symplectic geometry of the space of generalized Kahler structures*, Comentarii Math. Helv. **100** (2025), 147–223.

8. V. Apostolov, G. Dloussky, *Twisted differentials and Lee classes of locally conformally symplectic complex surfaces*, Math. Z. **303** (2023), Article 76.

9. V. Apostolov, S. Jubert, A. Lahdili, *Weighted K-stability and coercivity with applications to extremal Kähler and Sasaki metrics*, Geometry and Topology **8** (2023), 3229–3302.

10. V. Apostolov, J. Streets, Y. Ustinovskiy, *Variational structure and uniqueness of generalized Kähler-Ricci solitons*, Peking Mathematical Journal **6** (2023), 307–351.

11. V. Apostolov, J. Streets, Y. Ustinovskiy, *Generalized Kähler-Ricci flow on toric Fano varieties*, Trans. Amer. Math. Soc. **375** (2022), 4369–4409.

12. V. Apostolov, G. Maschler, C. W. Tonnesen-Friedman, *Weighted extremal Kahler metrics and the Einstein-Maxwell geometry of projective bundles*, Comm. Anal. Geom. **30** (2022), 689-744.

13. V. Apostolov, D. Calderbank, E. Legendre, *Weighted K-stability of polarized varieties and extremality of Sasaki manifolds*, Advances in Math **391** (2021), Paper No 107969.

14. V. Apostolov, D. M. J. Calderbank, *The CR geometry of weighted extremal Kähler and Sasaki metrics*, Math. Ann. **379** (2021), 1047–1088.

15. V. Apostolov, J. Streets, *The non-degenerate generalized Kähler Calabi–Yau problem*, J. Reine Angew. Math. **777** (2021), 1–48.

16. V. Apostolov, H. Auvray, L. Sektnan, *Extremal Kähler Poincaré-type metrics on toric varieties*, J. Geom. Anal. **31** (2021), 1223–1290.

17. V. Apostolov, D. Calderbank, P. Gauduchon, E. Legendre, *Levi-Kähler reduction of CR structures, products of spheres, and toric geometry*, Math. Res. Lett. **27** (2020), 1565–1629.

18. V. Apostolov, D. Calderbank, P. Gauduchon, E. Legendre, *Toric contact geometry in arbitrary co-dimension*, Int. Math. Res. Notices (IMRN) **2020** (2022), 2436–2467.

19. V. Apostolov, J. Keller, *Relative K-polystability of projective bundles over a curve*, Trans. Amer. Math. Soc. **372** (2019), 233–266,

20. V. Apostolov, G. Maschler, *Conformally Kähler, Einstein–Maxwell Geometry*, J. Eur. Math. Soc (JEMS), **21** (2019), 1319–1360.

21. V. Apostolov, G. Dloussky, *On the Lee classes of locally conformally symplectic complex surfaces*, Journal Symplectic Geometry **16** (2018), 931–958.

22. V. Apostolov, Y. Rollin, *ALE scalar-flat Kähler metrics on non-compact weighted projective spaces*, Math. Ann. **367** (2017), 1685–1726.

23. V. Apostolov, G. Dloussky, *Locally conformally symplectic structures on compact non-Kähler complex surfaces*, Int. Math. Res. Notices **9** (2016), 2717–2747.

24. V. Apostolov, D. Jakobson, G. Kokarev, *An extremal eigenvalue problem in Kähler geometry*, J. Geom. Phys. **91** (2015), 108–116, Special issue dedicated to P. Gauduchon's 70th birthday.

25. V. Apostolov, D. Calderbank, P. Gauduchon, *Ambitoric geometry I: Einstein metrics and extremal ambikähler structures*, J. Reine Angew. Math. **721** (2016), 109–147.

26. V. Apostolov, D. Calderbank, P. Gauduchon, *Ambitoric geometry II: Extremal toric surfaces and Einstein 4-orbifolds*, Ann. Sci. Ecole Norm. Supp. (4) **48** (2015), 1075–1112.

27. V. Apostolov, M. Bailey, G. Dloussky, *From locally conformally Kaehler to bi-Hermitian structures on non-Kähler complex surfaces*, Math. Res. Lett. **22** (2015), 317–336.

28. V. Apostolov, H. Huang, *A splitting theorem for extremal Kähler metrics*, Journal of Geometric Analysis, **25** (2015), 149–170.

29. V. Apostolov, D. Calderbank, P. Gauduchon, C. Tønnesen-Friedman, *Extremal Kähler metrics on projective bundles over a curve*, Adv. Math. **227** (2011), 2385–2424.

30. V. Apostolov, G. Dloussky, *Bihermitian metrics on Hopf surfaces*, Math. Res. Lett. **15** (2008), 827–839.

31. V. Apostolov, D. Calderbank, P. Gauduchon et C. Tonnesen-Friedman, *Extremal Kaehler Metrics on Ruled Manifolds and Stability*, in 'Géométrie différentielle, physique mathématique, mathématiques et société (II), Volume en l'honneur de Jean Pierre Bourguignon' (Ed. O. Hijazi), Astérisque **322** (2008), 93–150.

32. V. Apostolov, D. M. J. Calderbank , P. Gauduchon, C. W. Tonnesen-Friedman, *Hamiltonian 2-forms in Kaehler geometry III: Extremal metrics and stability*, Invent. Math. **173** (2008), 547–601.

33. V. Apostolov, D. M. J. Calderbank , P. Gauduchon, C. W. Tonnesen-Friedman, *Hamiltonian 2-forms in Kaehler geometry IV: Weakly Bochner-flat Kaehler manifolds*, Comm. Ann. Geom. **16** (2008), 91–126.

34. V. Apostolov, M. Gualtieri, *Generalized Kähler Manifolds, Commuting Complex Structures, and Split Tangent Bundles*, Comm. Math. Phys. **271** (2007), 561–575.

35. V. Apostolov, C. W. Tonnesen-Friedman, *A remark on Kaehler metrics of constant scalar curvature on ruled complex surfaces*, Bull. London Math. Soc. **38** (2006), 494–500.

36. V. Apostolov, D. M. J. Calderbank , P. Gauduchon, C. W. Tonnesen-Friedman, *Hamiltonian 2-forms in Kaehler Geometry II: Global Classification*, J. Differential Geom. **68** (2004), 277–345.

37. V. Apostolov, D. M. J. Calderbank, P. Gauduchon, *Hamiltonian 2-forms in Kaehler Geometry I: General Theory*, J. Differential Geom. **73** (2006), 359–412.

38. V. Apostolov, T. Draghici, A. Moroianu, *The odd-dimensional Goldberg conjecture*, Math. Nachr. **279** (2006), 948–952.

39. V. Apostolov, S. Salamon, *Kähler reduction of metrics with holonomy G_2*, Comm. Math. Phys. **246** (2004), 43–61.

40. V. Apostolov, T. Draghici, *The curvature and the integrability of almost-Kähler manifolds: a survey.* Symplectic and contact topology: interactions and perspectives (Toronto, ON/Montreal, QC, 2001), 25?53, Fields Inst. Commun., 35, Amer. Math. Soc., Providence, RI, 2003.

41. V. Apostolov, P. Gauduchon, D. M. J. Calderbank, *The geometry of weakly selfdual Kähler surfaces*, Compositio Math. **135** (2003), 279–322.

42. V. Apostolov, P. Gauduchon, *Self-dual Einstein Hermitian 4-manifolds*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) **1** (2002), 203–243.

43. V. Apostolov, J. Armstrong, T. Draghici, *Local models and integrability of certain almost Kähler 4-manifolds*, Math. Ann. **323** (2002), 633–666.

44. V. Apostolov, J. Armstrong, T. Draghici, *Local rigidity of certain classes of almost Kähler 4-manifolds*, Ann. Glob. Anal. Geom. **21** (2002), 151–176.

45. V. Apostolov, T. Draghici, A. Moroianu, *A splitting theorem for Kähler manifolds whose Ricci tensors have constant eigenvalues*, Int. J. Math. **12** (2001), 769–789.

46. V. Apostolov, *Bihermitian surfaces with odd first Betti number*, Math. Z. **238** (2001), 555–568.

47. V. Apostolov, J. Armstrong, *Symplectic 4-manifolds with Hermitian Weyl tensor*, Trans. Amer. Math. Soc. **352** (2000), 4501–4513.

48. V. Apostolov, T. Draghici, *Almost-Kähler 4-manifolds with J-invariant Ricci tensor and special Weyl tensor*, Q. J. Math. **51** (2000), 275–294.

49. V. Apostolov, J. Davidov, *Compact Hermitian surfaces and isotropic curvature*, Illinois J. Math. **44** (2000), 438–451.

50. V. Apostolov, T. Draghici, D. Kotschick, *An integrability theorem for almost Kähler 4-manifolds*, C. R. Acad. Sci. Paris **329** (1999), 413–418.

51. V. Apostolov, O. Mushkarov, *Weakly-Einstein Hermitian surfaces*, Ann. Inst. Fourier (Grenoble) **49** (1999), 1673–1692.

52. V. Apostolov, P. Gauduchon, G. Grantcharov, *Bihermitian structures on complex surfaces*, Proc. London Math. Soc. **79** (1999), 414–429, Erratum: Proc. London Math. Soc. (3) **92** (2006), 200–202.

53. V. Apostolov, G. Grantcharov, S. Ivanov, *Orthogonal complex structures on certain Riemannian 6-manifolds*, Diff. Geom. Appl. **11** (1999) 279–296.

54. V. Apostolov, T. Draghici, *Hermitian conformal classes and almost Kähler structures on four manifolds*, Diff. Geom. Appl. **11** (1999) 179–195.

55. V. Apostolov, G. Grantcharov, S. Ivanov, *Hermitian structures on twistor spaces*, Ann. Glob. Anal. Geom. **16** (1998), 291–308.

56. V. Apostolov, *Generalized Goldberg–Sachs theorems for pseudo-Riemannian four-manifolds*, J. Geom. Phys. **27** (1998), 185–198.

57. V. Apostolov, P. Gauduchon, *The Riemannian Goldberg–Sachs Theorem*, Int. J. Math. **8** (1997), 421–439.

58. V. Apostolov, G. Ganchev, S. Ivanov *Compact Hermitian surfaces of constant anti-holomorphic sectional curvature*, Proc. Amer. Math. Soc. **125** (1997), 3705–3714.

59. V. Apostolov, J. Davidov, O. Mushkarov, *Compact self-dual Hermitian surfaces*, Trans. Amer. Math. Soc. **385** (1996), 3051–3063.

60. V. Apostolov, *Compact $*$-Einstein Hermitian surfaces of negative type*, C. R. Acad. Sci. Bulgare 48 (1995), 19–22.

Books edited. V. Apostolov, A. Dancer, N. J. Hitchin, M. Wang (eds.), *Perspectives in Riemannian Geometry*, Proceedings of the special program on Riemannian Geometry held in Montreal (2004), CRM Proceedings and Lecture Notes Series, American Mathematical Society, 2006.

4.2 Research Funding Obtained

Individual Grants

- NSERC (Discovery Grant), 2023–2028, 37 000 $CAN per year.
- Research Chair "Connect Talent" Région Pays de la Loire (France), 2021–2026, 900 000 EUR.
- NSERC (Discovery Grant), 2017–2022, 43 000 $CAN per year,
- NSERC (Discovery Accelerator Supplement Award, DAS), 2011–14, 40 000 $CAN per year.
- NSERC (Discovery Grant), 2011–17, 26 000 $CAN year,
- NSERC (Discovery Grant), 2006–11, 18 000 $CAN per year,
- NSERC (Discovery Grant), 2001–06, 17 000 $CAN per year,
- FCAR, Quebec (New Researchers), 2001–04, 15 000 $CAN per year.

Team Grants

- FRQNT (Québec), 2024–27, P.I. Frédéric Rochon and 4 others, 50 000$ CAN year.
- ANR BRIDGES (France-Brésil), 2022-26, P.I. Éveline Legendre, Henrique Sà Earp and 13 other participants, 391 641 EUR
- FRQNT (Québec), 2021–24, P.I. Vestislav Apostolov and 4 others, 50 000$CAN per year.

- ANR (France), 2010–14, P.I. Andrei Teleman (Marseille) and 10 other participants, Total 217 000 EUR.
- FQRNT, (Quebec) 2003–06, P.I. Steven Boyer (UQAM) et 10 other participants, 40 000 $CAN per year,
- FQRNT (Quebec), 2003–06, P.I. François Lalonde (Université de Montéal) and 8 other participants, 50 000 $CAN per year,
- NSF (International), 1999–2002, P.I. David Blair (Michigan State University) and 6 other participants, 32 881 $US,

CIRGET Grants— The "Centre inter-universitaire de recherches en géométrie et topologie" (CIRGET) is an officially recognized UQAM research center, which is also the Geometry & Tolology lab of the Centre de recherches mathématiques (CRM) in Montréal. I was Director of CIRGET in the periods 2008–2011 and 2020-2021, and since June 2024. The center is funded by a UQAM infrastructure grant (60 000 $CAD per year), a Quebec Government grant "Regroupement stratégique" (around 50 000 $CAD) and various other sources. I have been actively involved in applying for and securing all this funding.

4.3 Selected research talks

- (2025) *From Kähler-Ricci solitons to Calabi-Yau cones*, Complex Geometry and Lie Groups, March 10-14 2025, Osaka (Japan).
- (2023) *The Calabi problem in GK geometry*, Geometry conference "50 years of Nigel Hitchin's mathematics", 11-14 December 2023, IMSA-Miami (É-U.).
- (2023) *Calabi program for Poisson complex manifolds*, The 7th Workshop "Complex Geometry and Lie Groups", 22-26 May 2023, Lecce (Italie).
- (2022) *The Calabi problem in GK geometry*, Special Metrics in Complex Geometry, UT Dallas (É-U).
- (2022) *The weighed Calabi problem.* "Edging Higher" Inaugural Conference of the International Center for Mathematical Sciences-Sofia, Sofia (Bulgarie).
- (2022) *Le problème de Calabi en géométrie kahlérienne généralisée*, Séminaire Quimpériodique, Quimper (France).
- (2021) *K-stabilité à poids et structures de Sasaki extrémales*, Séminaire d'Analyse et Géométrie, Institut de mathématiques de Jussieu, Paris (France).
- (2021) *Weighted K-stability of Kähler manifolds and extremality of Sasaki manifolds*, The 27th symposium of complex geometry, Osaka (Japon).

- (2021) *Weighted K-stability of Kähler manifolds and extremality of Sasaki manifolds*, Geometric Analysis ZOOM seminar, Rudgers (É.-U).
- (2019) *Weighted extremal metrics in Sasaki and Kähler geometry*, Trends in Modern Geometry, 2019, Tsinghua University, Beijing.
- (2019) *Weighted extremal metrics in Sasaki and Kähler geometry*, A Celebration in Geometry, Analysis and Physics (honouring N. Kamran's 60th birthday), Montreal, Canada. (**keynote speaker**)
- (2019) *Kähler geometry of toric varieties*, Master course (6 hours) at CIRM.
- (2018) *The Calabi–Yau problem in generalized Kähler geometry*, Princeton Geometry Seminar, Princeton, USA.
- (2017) *The Calabi–Yau problem in generalized Kähler geometry*, Mathematical Days in Sofia, Sofia, Bulgaria. (**keynote speaker**)
- (2017) *La géometrie kählérienne des variétés toriques*, lecture series during 3 weeks, 4 talks 2 hour each, Nantes, France. (**Chaire Lebesgue**)
- (2016) *Locally Conformally Symplectic Structures on Compact Non-Kähler Complex Surfaces.* Recent advances in complex differential geometry, Toulouse, France.
- (2016) *Locally Conformally Symplectic Structures on Compact Non-Kähler Complex Surfaces.* Special Hermitian metrics on non-Kähler manifolds, Florence, Italy.
- (2015) *Higher codimension CR structures, Levi–Kähler reduction, and toric geometry.* Recent Advances in Kähler Geometry, Nashville, United States.
- (2015) *Toric aspects of the Einstein–Maxwell equations.* Toric Kähler geometry at Simons Center, Stony Brook, United States.
- (2015) *Bi-Hermitian conformal structures, conformally symplectic forms, and lcK metrics on non-Kähler complex surfaces.* New perspectives in differential geometry: special metrics and quaternionic geometry. In honour of Simon Salamon on the occasion of his 60th birthday, Rome, Italy. (**keynote speaker**)
- (2015) *Higher codimension CR structures, Levi–Kähler reduction and toric geometry.* Real and Complex Differential Geometry, Bucarest, Romania.
- (2014) *From locally conformally Kähler to bi-Hermitian structures.* Mathematical Days in Sofia, special session Analysis, Geometry and Topology, Sofia, Bulgaria.
- (2014) *From locally conformally Kähler to bi-Hermitian metrics.* Complex Geometry and Lie Groups, Torino, Italy.

- (2013) *Stability and special Kähler metric on a projective variety.* Colloquium at Western, London, Canada. (**keynote speaker**).
- (2013) *Structures ambitoriques sur une variété conforme de dimension 4.* Aspects conformes de la géométrie, Paris, France .
- (2012) *Ambitoric Geometry.* Geometric PDE's, CRM, Montréal, Canada.
- (2012) *Ambitoric Geometry.* Conformal and Kähler Geometry at the IHP, Paris, France.
- (2011) *Ambitoric structures and extremal Kähler orbi-surfaces with* $b_2(M) = 2$. Kähler Geometry, Cambridge, United Kingdom.
- (2010) *Extremal Kähler metrics on projective bundles over a curve.* Complex Geometry, Levico Terme, Italy.
- (2010) *Extremal Kähler metrics on projective bundles over a curve.* Kähler and Differential Geometry, Nashville, United States.

5 Research supervision of students and postdocs

5.1 Undergraduate supervision

- Abdelaziz Megdiche, UQAM (2024)
- Alexandro Gonzalez Lepé, UQAM (2015, 2016)
- Étienne Tétreault, UQAM (2015)
- Mohamed Nouidha, UQAM (2014)
- Samuel Gilard, summer research program, l'ENS Cachan (2010)
- Clément Debin, summer research program, l'ENS de Lyon (2010)
- Xavier Dupuis, summer research program, l'ENS de Lyon (2008)
- Didier Chételat, McGill (2008)
- Stephen Morgan, Toronto, NSERC (2007)
- Yannick Assénat, UQAM, NSERC (2006)
- Ariane Garon, UQAM, NSERC (2005)
- Lionel Poujet, summer research program, l'ENS de Lyon (2005)
- Mehdi Lejmi, UQAM (2004)
- Gabriel Painchaud, UQAM, NSERC (2003, 2004).
- Huynyda Bac, UQAM (2002)

5.2 MSc supervison

- (Nantes) Victor Correc, 2022, Mémoire de M2 .
- (UQAM) Alexandro Gonzalez Lepé, 2016–18.
- (UQAM) Mohamed Nouidha, 2014–16.
- (UQAM) Raghad Al-Nuri, 2012–15.
- (UQAM) Selim Tawfik, 2013–14.
- (UQAM) Samuel Boucher, 2010–12.
- (UQAM) Gabriel Painchaud, 2004–06.
- (UQAM) Mehdi Lejmi, 2004–06.

5.3 PhD supervision

- Meriem Nabil, UQAM, 2025–, co-supervision with F. Rochon. Title: *Calabi-Yau ALF's.*
- Giovanny Soto, UQAM, 2024–, Title: *The Yau-Tian-Donaldson correspondence in GK geometry.*
- Mehrdad Najafpour, UQAM, 2024, co-supervised with F. Rochon. Title: *CSC Kahler metrics on resolutions of an orbifold singularity of depth 1.* Preprint: arXiv:2411.02823.
- Simon Jubert (currently posdoc in Jussieu France), UQAM, 2023, co-supervised with E.Legendre. Title: *Le problème de Calabi sur une fibration principale semi-simple en variétés toriques.* Publications from the thesis: Ann. Inst. Fourier **73** (2023), 2567-2604; Geometry & Topology **8** (2023), 3229-3302 (with Apostolov et Lahdili); Ann. Henri Lebesgue **6** (2023), 117-149 (with T. Delcroix).
- Isaque Viza de Souza (currently assistant professor at Universidade Federal de Ouro Preto, Brazil), UQAM, 2021. Title: "Métriques d'Einstein–Maxwell sur les surfaces complexes de Hirzebruch". Submitted in August 2021. Publications from the thesis: Ann. Glob. Anal. Geom. **59** (2021), 263–284.
- Abdellah Lahdili (currently a postdoc at Aarhus, Denmark), UQAM, 2019, co-supervised with F. Rochon. Title "La courbure scalaire ponderée d'une variété kählerienne". Publications from the thesis work: Proc. London Math. Soc.(3) **119** (2019) 1065–1114 ; J. Geom. Anal. **29** (2019), 542–568 ; Int. Math. Res. Notices **2020** (2020), 8418–8442.
- Kael Dixon (currently data analyst), McGill, 2016, co-supervised with Niky Kamran. Title: "Completions of regular ambitoric 4-manifolds: Riemannian Kerr metrics and beyond". Publications issues de la thèse : Comm. Anal. Geom. **29** (2021), 629–679.
- Laurence Boulanger (currently statistician in the private sector), University of Montreal, 2015, co-supervised with F. Lalonde. Title: "Sur une classe de structures kählériennes généralisées toriques". Publications from the thesis work: J. Symplectic Geom. **17** (2019), 973–1019.
- Mehdi Lejmi (currently associate professor at CUNY, Bronx), UQAM, 2010. Title: "Variétés presque kählériennes extrémales". Publications from the thesis work: Comptes Rendus Mathématiques Académie Sciences Paris, Ser. I **343** (2006) 759-762; Internat. J. Math. **21** (2010), 1639-1662; Math. Res. Letters **17** (2010), 601-612; Ann. Inst. Fourier (Grenoble) **64** (2014), 2251–2263.
- Éveline Legendre (currently full professor in Lyon), UQAM, 2010, co-supervised with P. Gauduchon (École polytechnique, Palaiseau) Title: "La géométrie torique d'un quadrilatère". Publications from the thesis work: J. Symplectic Geom. **9** (2011), 343–385; Compositio Math. **147** (2011), 1613–1634.

5.4 Postdoc supervision

- Chung-Ming Pan, co-supervision with J. Keller, F. Rochon, S. Lu, M. Mayrand, since 2024, UQAM.
- Carlo Scarpa (currently Marie Curie fellow in Lyon), co-supervised with J. Keller, F. Rochon and S. Lu, 2022-2024, UQAM.
- Charles Cifarelli (currently a Simon's instructor at Stony Brook), University of Nantes 2021-23 and UQAM 2024.
- Michael Albanese (currently lecturer in Adelaide), co-supervised with F. Rochon, UQAM, 2020-22.
- Gavin Ball (currently postdoc at Madison, US), co-supervised with F. Rochon and N. Kamran, UQAM, 2019–2021.
- Lars Sektnan (currently assistant professor in Sweden), co-supervised with F. Rochon, UQAM, 2016–2019.
- Ali Aleyasin (currently data analyst in Canada), co-supervised with S. Lu and F. Rochon, 2013–2014 and 2016–2017.
- Ronan Conlon (currently an associate professor in Dallas, USA), co-supervised with S. Lu and F. Rochon, UQAM, 2013–2016.
- Michael Bailey (currently a data analyst in Canada), UQAM, 2012–2013.
- Hongnian Huang (currently an associate professor at University of New Mexico, USA), UQAM, 2009–2011 and 2013–2014.
- Carl Tipler (currently an associate professor (MCF) at University of Brest, France), UQAM, 2012–2013.
- Andrea Gambioli (currently a lecturer at Dawson College, Montréal, Canada), UQAM, 2007–2010.
- David Duchemin (currently a lecturer in a Lycée, Paris, France), UQAM, 2004–07.
- Dimiter Vassilev (currently a full professor at University of New Mexico, USA), co-supervised with Dimitry Jakobson and Galia Dafni, UQAM, 2002–2004
- Diego Matessi (currently a professor at University of Alexandria, Italiy), co-supervised with Jacques Hurtubise and Fançois Lalonde, CRM, 2001-2002.

6 Service to the international mathematical community

6.1 Organized events

- Member of the scientific committee of the conference "Complex Hermitian Geometry", 19-23 mai 2025, Angers, France.
- Member of the scientific committee of the thematic program "Geometric analysis', April-June 2024, CRM-Montréal.
- Co-organiser with J. Keller, J. Ross an E. Di Nezza of the workshop "Current Trends in Kähler Metrics with Special Curvature Properties", 17-21 juin 2024, UQAM-CRM.
- Co-organiser with E. Di Nezza, P. Guan, S. Karigiannis, J. Keller, A. Stancu, V. Tosatti of the summer school SMS "Flows and Variational Methods in Riemannian and Complex Geometry: Classical and Modern Methods". Université de Montréal, 3-14 juin 2024.
- Co-organisater with E. Legendre and J. Keller of the PhD school and workshop "Advances in Special Kahler Metrics", Croisic-France, 07-12 juin 2023.
- Co-organiser with B. Chantraine, A. Moroianu and E. Murphy of the workshop "Locally Conformal Symplectic Manifolds: Interactions and Applications", November 07–12 2021, BIRS, Banff, Canada (online).
- Co-organazer with I. Agricola, R. Bryant, S. Karigiannis et M. Wang of the workshop "Special Geometries on Riemannian Manifolds", October 11-15, 2021, Centre des Recherches de Mathématiques (CRM) Montreal (hybrid).
- Co-organizer with A. Fino, D. H. Phong and D. Popovici of the workshop "Bridging the Gap between Kähler and non-Kähler Complex Geometry", October 27th – November 1st, 2019, BIRS, Banff, Canada.
- Co-organizer with G. Grantcharov, N. Nikolov, V. Milousheva, C. Yankov of the conference "Davidov & Mushkarov Fest", August 15–17, 2016, Sofia, Bulgaria
- Co-organizer with O. Biquard, X.-X. Chen, A. Fuatki et M. Pontecorvo of the conference "LeBrun Fest", July 05–10, 2016, Montréal, Canada.
- Co-organizer with C. Arezzo, X. X. Chen and C. LeBrun of the workshop "Extremal Kähler Metrics', May–June, 2013, CRM, Montréal, Canada.
- Member of the scientific committee of the thematic year "Moduli Spaces, Extremality and Global Invariants" at the CRM, 2012–13, Montréal, Canada.
- Member of the scientific committee of the workshop "Non-kählerian aspects of complex geometry", February 21–25, 2011, CIRM, Luminy, France.

- Co-organizer with C. Arezzo, X. X. Chen and R. Thomas of the workshop "Extremal Kähler Metrics" Juin 28th–July 03th, 2009, BIRS, Banff, Canada.
- Co-organizer with P. Guan and A. Stancu of the workshop "Geometric evolution equations", April 16–27, 2008, CRM, Montréal, Canada.
- Member of the scientific committee of the thematic semester "Dynamical Systems" at the CRM, 2008, Montréal.
- Co-organizer with A. Moroianu and F. Belgun of the conference in differential geometry honouring Paul Gauduchon's 60th birthday, May 18–20th, 2005, Palaiseau, France.
- Co-organizer with A. Dancer, N. J. Hitchin and M. Wang of the special programme in Riemannian Geometry of the CRM, June 28th – July 16th, 2004, Montréal, Canada.

6.2 Editorial boards of scientific journals

- "Annual of Sofia University: Faculty of Mathematics and Informatics", since 2022.
- "Complex Manifolds" (published by de Gruyter), since 2013.
- "Annals of Global Analysis and Geometry" (published by Springer), since 2016.

6.3 Panels of research funding agencies

Member of the evaluation committee "Mathematics and Statistics" of NSERC, Canada, 2014–16.

6.4 Panels of research institutes

Member of the evaluation committee Hcéres which evaluates the research of the CNRS Paul Painlevé Laboratoire (LPP, Université de Lille, France), 2018–19.

6.5 Referee for research funding institutions

NSERC (Canada), FCI (Portugal), FNRS (Belgium), ANR (France), ERC-Actions Curie (Europe), The Romanian Research Funding Agency.

6.6 Centre de Recherches Mathématiques (CRM)

Director Selection Committee (2013 et 2010); Local Scientific Committee (2013–17).

6.7 Member of habilitation committees–HDR

- External referee and member of jury , Julien Keller, Université Aix-Marseille, 2014.
- External referee and member of jury, Thibeau Delcroix, Université Montpellier, 2024.
- External referee and member of jury, Tat Dat Tô, Université Paris-Sorbonne, 2025.
- Member of jury, Louis Ioos, Cergy Pontoise, 2025.

6.8 PhD defence committees

- External referee and member of jury, Yi Ma, Université Toulouse, 2024.
- External referee, Daheng Min, Université Paris-Sorbonne, 2024.
- External referee and member of jury, Lennart Döppenschmitt, Université Toronto, 2022.
- External referee and member of jury, Thomas Franzinetti, Université Paris-Sorbonne, 2022.
- External referee and member of jury, Bruce Flamencourt, Université Paris-Saclay, 2022.
- External referee, Alice Gatti, Università di Milano, 2019.
- External referee, François Delgove, Université Paris-Saclay, 2019.
- Member of jury, Caroline Vernier, Université de Nantes, 2018.
- External referee, Nicolina Istrati, Université Paris Diderot, 2018.
- Member of jury, Guillaume Polliquin, Université de Montréal, 2015.
- Membre of jury, Benjamin Smith, Université McGill, 2014.
- President of jury, Radu Cebanu, Université du Québec à Montréal, 2013.
- Member du jury, Lauren Kay, Université McGill (département de physique), 2012 .
- Member du jury, François Charrette, Université de Montrál, 2012.
- Member du jury, Xiangwen Zhang, Université McGill, 2012.
- External referee and member of jury, Carl Tipler, Université Nantes, 2011.
- Member of jury, Michael Wang, Université McGill, 2011.
- External referee, Roger Nakad, Université Nancy 1, 2011.14-20
- Member of jury, Jean-Baptiste Butruille, École Polytechnique, France, 2005.

7 Local service

7.1 Administration

Director. — The "Centre inter-universitaire de recherches en géométrie et topologie" (CIRGET) is an officially recognized UQAM research center, which is also the Geometry & Tolology lab of the Centre de recherches mathématiques (CRM) in Montréal. I was Director of CIRGET from 2008 to 2011, from 2020 to 2021 and since June 2024.The center includes 25 permanent members (professors), about 10 postdocs, and all the PhD students in Geometry & Topology in Montreal. I was involved in the organization of a number of scientific events and have been involved in applying to two Canadian Research Chairs associated to the center.

Organizing of local scientific activities. — Co-organizer of the weekly Montreal Geometry & Topology Seminar, 2007–2011 and 2018–2019. Organizer of the weakly seminar in Kähler geometry at UQAM, 2009–2019.

Committee work at UQAM. — Academic Council of the Faculty of Sciences (2003–04 and 2009–11); Research Committee of the Faculty of Sciences (2007–11, 2024–); Prize and Award Committee of the Faculty of Sciences (2016); Research Chairs Committee of the Faculty of Sciences (2017–18, 2021); UQAM Selection Committee for the NSERC graduate fellowships (2006 and 2007); Promotion Committee, Faculty of Sciences (2010–11); Mathematics Department Executive Committee (2012–13 et 2013–14); Mathematics Department Evaluation Committee (2010–11); Mathematics Department New Positions Committee (2009–11, 2014–15; 2016–17); Department of Mathematics PhD Admission and Evaluation Committee (2000–11, 2018–19); Hiring Committee in Statistics (2014–15); Hiring Committee in Pure Mathematics (2018–19).

Committee work at the Centre de Recherches Mathématiques (CRM). — Search committee for the nomination of the Director of the CRM (2013 and 2010); Local Scientific Committee (2013–17); Postdoctoral selection committee ISM-CRM (2006 and 2007); Scientific lab directors committee (2008–11).

7.2 Teaching

Undergraduate level (UQAM). — Analysis II; Introduction to Geometry; Linear Algebra II; Linear Algebra III; EDO; PDE; Differential Geometry, Introduction to Topology, Complex Analysis II.

Graduate level (for the Geometry & Topology graduate students from the 4 universities in Montreal). — Advanced Analysis; Differential Geometry, Riemannian Geometry, Complex Geometry, Lie Groups and Lie Algebras, Toric Kähler Geometry.