

CURRICULUM VITA

for
Alexander V. Isaev

Nationality: Australian and Russian

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Graduate Education: Ph.D., Mathematics, Moscow State University, 1990
Thesis advisor: A. G. Vitushkin
Thesis title: Classification of spherical
tube hypersurfaces with Levi form that has
at most two negative eigenvalues

Undergraduate Education: M.S., Mathematics, Moscow State University, 1986
Thesis advisor: A. G. Vitushkin
Thesis title: An estimate of the dimension
of the image under a holomorphic mapping
of real-analytic hypersurfaces

Positions Held: Professor, since 2014, Australian National University
Associate Professor, 2006–2013, ANU
Senior Lecturer, 2003–2005, ANU
Lecturer, 2001–2003, ANU
Australian Research Council Fellow, 1996–2001, ANU
Research Fellow, 1994–1996, ANU
Postdoctoral Research Fellow, 1992–1994, ANU
Assistant Professor, 1989–1992, Moscow State University

Visiting Positions: Alexander von Humboldt Research Fellowship:
Gesamthochschule Wuppertal, Germany:
1. December 1995 – May 1996 and
2. December 1996 – May 1997
Ruhr-Universität Bochum, Germany:
1. January – February 2007
2. January – February 2010
3. November – December 2012
Göteborg University, Sweden:
August – November 1998
University of Illinois, Urbana-Champaign, USA:
January – May 2001
Ruhr-Universität Bochum, Germany:
January 2006
Max-Planck Institut für Mathematik, Bonn, Germany:
1. April – May 2007
2. August – October 2010
3. April – May 2014
Hong Kong University:
March, 2007
Fudan University, China:
April, 2007
Indian Institute of Science, Bangalore:
January – February 2009
Rutgers University, USA:
December 2011
Bar-Ilan University, Israel:
September 2014
University of Tromsø, Norway:
March 2016
Boston College, USA:
1. April 2016
2. November 2018
The Steklov Mathematical Institute, Russia:
1. February – April 2018
2. June 2018 – present

Université Paris-Sud, France:
3 February – 18 February 2019

GRANTS

ARC Discovery Grant for 2019–2021
ARC Discovery Grant for 2014–2016
ARC Discovery Grant for 2011–2013
ARC Discovery Grant for 2008–2010
ARC Discovery Grant for 2004–2006 (joint with S. Easteal, G. Huttley
and M. Wakefield)
ARC Linkage Grant for 2004–2007 (joint with G. Huttley and Cray Inc.)
Ministry of Higher Education of Sweden Grant for 1998
(joint with A. Stolin of Göteborg University, Sweden)
ARC Small Grants for 1997, 1999, 2000
Faculty of Science Research Grants for 2003, 2004, ANU
MSI Research Grants for 2003, 2004, ANU

BIBLIOGRAPHY

Refereed Journal Articles

1. An estimate of the dimension of the image under a holomorphic mapping of real-analytic hypersurfaces (translated from Russian), *Math. USSR-Izv.* 30(1988), 89–102.
2. (With M. A. Mishchenko) Affine classification of tube quadrics that have one minus in the Levi signature form (Russian), *Mat. Zametki* 44(1988), 145–146.
3. (With M. A. Mishchenko) Classification of spherical tube hypersurfaces that

- have one minus in the Levi signature form (translated from Russian), *Math. USSR-Izv.* 33(1989), 441–472.
4. Reduction of the problem of classification of tube quadrics to the solution of a system of differential equations of a special form (translated from Russian), *Math. Notes* 45(1989), 354–360.
 5. Classification of spherical tube hypersurfaces that have two minuses in the Levi signature form (translated from Russian), *Math. Notes* 46(1989), 517–523.
 6. Global properties of spherical tube hypersurfaces, *Indiana Univ. Math. J.* 42(1993), 179–213.
 7. Kähler-Einstein metric on Reinhardt domains, *J. Geom. Analysis* 5(1995), 237–254.
 8. The images of Levi-nondegenerate manifolds under holomorphic mappings, *Complex Var.* 27(1995), 217–233.
 9. Rigid spherical hypersurfaces, *Complex Var.* 31(1996), 141–163.
 10. (With S. Fu and S. G. Krantz) Reinhardt domains with non-compact automorphism groups, *Math. Res. Letters* 3(1996), 109–122.
 11. (With S. Fu and S. G. Krantz) Finite type conditions on Reinhardt domains, *Complex Var.* 31(1996), 357–363.
 12. (With S. G. Krantz) On the boundary orbit accumulation set for a domain with non-compact automorphism group, *Michigan Math. J.* 43(1996), 611–617.
 13. (With S. Fu and S. G. Krantz) Examples of domains with non-compact automorphism groups, *Math. Res. Letters* 3(1996), 609–617.
 14. (With S. G. Krantz) Finitely smooth Reinhardt domains with non-compact automorphism group, *Illinois J. Math.* 41(1997), 412–420.
 15. (With S. G. Krantz) Hyperbolic Reinhardt domains in \mathbb{C}^2 with non-compact automorphism group, *Pacific J. Math.* 184(1998), 149–160.
 16. (With V. V. Ezhov and G. Schmalz) Invariants of elliptic and hyperbolic CR-structures of codimension 2, *Internat. J. Math.* 10(1999), 1–52.
 17. (With S. G. Krantz) Domains with non-compact automorphism group: a survey, *Advances in Math.* 146(1999), 1–38.
 18. (With V. V. Ezhov) Canonical isomorphism of two Lie algebras arising in CR-geometry, *Publ. RIMS, Kyoto* 35(1999), 249–261.

19. (With J. A. Gifford and S. G. Krantz) On the dimensions of the automorphism groups of hyperbolic Reinhardt domains, *Illinois J. Math.* 44(2000), 602–618.
20. (With S. G. Krantz) Invariant distances and metrics in complex analysis, *Notices Amer. Math. Soc.* 47(2000), 546–553.
21. (With S. G. Krantz) On the automorphism groups of hyperbolic manifolds, *J. reine angew. Math. (Crelle's J.)* 534(2001), 187–194.
22. Characterization of \mathbb{C}^n by its automorphism group (invited paper), *Analytic and Geometric Issues of Complex Analysis, Collected Papers Dedicated to the 70th Anniversary of A. G. Vitushkin, Proc. Steklov Inst. Math.* 235(2001), 103–106.
23. (With N. G. Kruzhilin) Effective actions of the unitary group on complex manifolds, *Canadian J. Math.* 54(2002), 1254–1279.
24. (With N. G. Kruzhilin) Effective actions of SU_n on complex n -dimensional manifolds, *Illinois J. Math.* 48(2004), 37–57.
25. (With A. Butterfield, V. Vedagiri, E. Lang, C. Lawrence, M. Wakefield and G. Huttley) PyEvolve: a toolkit for statistical modelling of molecular evolution, *BMC Bioinformatics* 5(2004):1 (12 pages).
26. Characterization of the unit ball in \mathbb{C}^n among complex manifolds of dimension n , *J. Geom. Analysis* 14(2004), 697–700; erratum, *J. Geom. Analysis* 18(2008), 919.
27. (With M. Eastwood and V. Ezhov) Towards a classification of homogeneous tube domains in \mathbb{C}^4 , *J. Diff. Geom.* 68(2004), 553–569.
28. On hyperbolic n -dimensional manifolds with automorphism group of dimension n^2 , *Complex Var.* 50(2005), 345–355.
29. Hyperbolic manifolds of dimension n with automorphism group of dimension $n^2 - 1$, *J. Geom. Analysis* 15(2005), 239–259.
30. (With V. V. Ezhov) On the dimension of the stability group for a Levi non-degenerate hypersurface, *Illinois J. Math.* 49(2005), 1155–1169; erratum, *Illinois J. Math.* 51(2007), 1035–1036.
31. Analogues of Rossi's map and E. Cartan's classification of homogeneous strongly pseudoconvex 3-dimensional hypersurfaces, *J. Lie Theory* 16(2006), 407–426.
32. (With N. G. Kruzhilin) Proper holomorphic maps between Reinhardt domains in \mathbb{C}^2 , *Michigan Math. J.* 54(2006), 33–63.

33. Hyperbolic manifolds with high-dimensional automorphism group (invited paper), *Collected Papers in Memory of A. G. Vitushkin, Proc. Steklov Inst. Math.* 253(2006), 225–245.
34. Hyperbolic n -dimensional manifolds with automorphism group of dimension n^2 , *Geom. Funct. Anal. (GAFA)* 17(2007), 192–219.
35. Proper actions of high-dimensional groups on complex manifolds, *J. Geom. Analysis* 17(2007), 649–667.
36. Complex manifolds admitting proper actions of high-dimensional groups, *J. Lie Theory* 18(2008), 141–160.
37. On proper actions of Lie groups of dimension $n^2 + 1$ on n -dimensional complex manifolds, *J. Math. Anal. Appl.* 342(2008), 1160–1174.
38. A remark on a theorem by Kodama and Shimizu, *J. Geom. Anal.* 18(2008), 795–799.
39. Hyperbolic 2-dimensional manifolds with 3-dimensional automorphism group, *Geometry and Topology* 12(2008), 643–711.
40. On Chern-Moser normal forms of strongly pseudoconvex hypersurfaces with high-dimensional stability group, *Pacific J. Math.* 235(2008), 235–244.
41. (With N. G. Kruzhilin) Proper actions of Lie groups of dimension $n^2 + 1$ on n -dimensional complex manifolds, *Israel J. Math.* 172(2009), 193–252.
42. Zero CR-curvature equations for rigid and tube hypersurfaces (invited paper), *Complex Var.* (special issue), 54(2009), 317–344.
43. (With A. Huckleberry) Infinite-dimensionality of the automorphism groups of homogeneous Stein manifolds, *Math. Ann.* 344(2009), 279–291.
44. (With A. Huckleberry) Classical symmetries of complex manifolds, *J. Geom. Analysis* 20(2010), 132–152.
45. (With I. Kossovskiy) Continuation of CR-automorphisms of Levi degenerate hyperquadrics to the projective space, *Illinois J. Math.* 54(2010), 747–752.
46. On the number of affine equivalence classes of spherical tube hypersurfaces, *Math. Ann.* 349(2011), 59–74.
47. (With G. Fels, W. Kaup, N. Kruzhilin) Isolated hypersurface singularities and special polynomial realizations of affine quadrics, *J. Geom. Analysis* 21(2011), 767–782.
48. On the affine homogeneity of algebraic hypersurfaces arising from Gorenstein algebras, *Asian J. Math.* 15(2011), 631–640.

49. (With W. Kaup) Regularization of local CR-automorphisms of real-analytic CR-manifolds, *J. Geom. Analysis* 22(2012), 244–260.
50. Application of classical invariant theory to biholomorphic classification of plane curve singularities, and associated binary forms (invited paper), *Collected Papers Dedicated to the 80th Anniversaries of A. G. Vitushkin and A. A. Gonchar*, *Proc. Steklov Inst. Math.* 279(2012), 245–256.
51. (with A. Huckleberry) On the Kobayashi hyperbolicity of certain tube domains, *Proc. Amer. Math. Soc.* 141(2013), 3141–3146.
52. (With M. Eastwood) Extracting invariants of isolated hypersurface singularities from their moduli algebras, *Math. Ann.* 356(2013), 73–98.
53. (With D. Zaitsev) Reduction of five-dimensional uniformly Levi degenerate CR structures to absolute parallelisms, *J. Geom. Analysis* 23(2013), 1571–1605.
54. On the classification of homogeneous hypersurfaces in complex space, *Internat. J. Math.* 24(2013), no. 8, 1350064 (11 pages, electronic), DOI: 10.1142/S0129167X1350064X.
55. (With N. G. Kruzhilin) Explicit reconstruction of homogeneous isolated hypersurface singularities from their Milnor algebras, *Proc. Amer. Math. Soc.* 142(2014), 581–590.
56. (With M. Eastwood) Invariants of Artinian Gorenstein algebras and isolated hypersurface singularities, in *Developments and Retrospectives in Lie Theory: Algebraic Methods*, *Developments in Mathematics*, vol. 38, Springer, New York, 2014, pp. 159–173.
57. (With J. Alper) Associated forms in classical invariant theory and their applications to hypersurface singularities, *Math. Ann.* 360(2014), 799–823.
58. A complex-analytic proof of a criterion for isomorphism of Artinian Gorenstein algebras, *Complex Anal. Syner.* 1(2015), no. 1, (10 pages, electronic), DOI:10.1186/2197-120X-1-1.
59. Proper actions of high-dimensional groups on complex manifolds, *Bull. Math. Sci.* 5(2015), 251–285.
60. A criterion for isomorphism of Artinian Gorenstein algebras, *J. Commut. Algebra.* 8(2016), 89–111.
61. On the Kobayashi hyperbolicity of tube domains in \mathbb{C}^2 , *J. Math. Anal. Appl.* 434(2016), 1007–1010.

62. (with B. Kruglikov) A short proof of the Dimension Conjecture for real hypersurfaces in \mathbb{C}^2 , *Proc. Amer. Math. Soc.* 144(2016), 4395–4399.
63. (with J. Alper and N. Kruzhilin) Associated forms of binary quartics and ternary cubics, *Transform. Groups* 21(2016), 593–618.
64. Affine rigidity of Levi degenerate tube hypersurfaces, *J. Diff. Geom.* 104(2016), 111–141.
65. On the contravariant of homogeneous forms arising from isolated hypersurface singularities, *Internat. J. Math.* 27(2016), no. 11, 1650097 (14 pages, electronic), DOI: 10.1142/S0129167X1650097X.
66. On the CR-curvature of Levi degenerate tube hypersurfaces, *Methods Appl. Anal.* 23(2016), 317–328.
67. Effective transitive actions of the unitary group on quotients of Hopf manifolds, *J. Geom. Analysis* 27(2017), 1914–1919.
68. On homogeneous hypersurfaces in \mathbb{C}^3 , *J. Geom. Analysis* 27(2017), 2044–2054.
69. A combinatorial proof of the smoothness of catalecticant schemes associated to complete intersections, *Ann. Comb.* 21(2017), 375–395.
70. (With B. Kruglikov) On the symmetry algebras of 5-dimensional CR-manifolds, *Adv. Math.* 322(2017), 530–564.
71. On necessary and sufficient conditions for the Kobayashi hyperbolicity of tube domains in \mathbb{C}^2 , *J. Math. Anal. Appl.* 460(2018), 58–62.
72. (with J. Alper) Associated forms and hypersurface singularities: the binary case, *J. reine angew. Math. (Crelle's J.)* 745(2018), 83–104.
73. Proper actions of high-dimensional groups on complex manifolds: the techniques, in: *Handbook on Group Actions*, vol. III (edited by L. Ji, A. Papadopoulos, S.-T. Yau), Adv. Lect. Math. (ALM), 40, Int. Press, Somerville, MA, 2018, pp. 175–214.
74. Homogeneous Kobayashi-hyperbolic manifolds with automorphism group of subcritical dimension, *Complex Var. Elliptic Eq.* 63(2018), 1752–1766.
75. (With M. Fedorchuk) Stability of associated forms, to appear in *J. Algebraic Geom.*, published online, DOI: 10.1090/jag/719.
76. Homogeneous Kobayashi-hyperbolic manifolds with high-dimensional group of holomorphic automorphisms, to appear in *Asian J. Math.*
77. Associated forms: current progress and open problems, *J. Geom. Analysis*

29(2019), 1706–1743.

78. Further steps towards classifying homogeneous Kobayashi-hyperbolic manifolds with high-dimensional automorphism group, to appear in *J. Geom. Analysis*, a special issue on invariant distances and metrics, published online, DOI: 10.1007/s12220-019-00227-x.
79. Rigid Levi degenerate hypersurfaces with vanishing CR-curvature, *J. Math. Anal. Appl.* 474(2019), 782–792.
80. Zero CR-curvature equations for Levi degenerate hypersurfaces via Pocchiola’s invariants, to appear in *Ann. Math. Toulouse*.
81. (With M. Fedorchuk) Associated form morphism, to appear in *Internat. Math. Res. Notices (IMRN)*, published online, DOI: 10.1093/imrn/rnz060.
82. (With J. Merker) On the real-analyticity of rigid spherical hypersurfaces in \mathbb{C}^2 , to appear in *Proc. Amer. Math. Soc.*

Books

1. *Introduction to Mathematical Methods in Bioinformatics*, Springer, Berlin, 2004; corrected second printing, Springer, Berlin, 2006; third printing, Science Press, Beijing, 2012.
2. *Lectures on the Automorphism Groups of Kobayashi-Hyperbolic Manifolds*, Lecture Notes in Mathematics, vol. 1902, Springer, Berlin, 2007.
3. *Spherical Tube Hypersurfaces*, Lecture Notes in Mathematics, vol. 2020, Springer, Berlin, 2011.
4. *Twenty-One Lectures on Complex Analysis: A First Course*, SUMS, Springer, Cham, 2017.

Refereed Conference Proceedings

1. Degenerate holomorphic mappings of nondegenerate CR-manifolds, Proceedings of the Conference on Analysis and Applications, Brisbane, 20–23

- September 1993; Proc. Centre Math. Appl. Austral. Nat. Univ., vol. 33, Austral. Nat. Univ., Canberra, 1994, pp. 99–105.
2. (With S. G. Krantz) Characterization of Reinhardt domains by their automorphism groups, Proceedings of the 3rd Korean Several Complex Variables Symposium, Seoul, 16–19 December 1998; *J. Korean Math. Soc.* 37(2000), 297–308.
 3. Rotationally invariant complex manifolds, Proceedings of the 6th Korean Several Complex Variables Symposium, Gyeong-Ju, 14–18 August 2002; *J. Korean Math. Soc.* 40(2003), 391–408.
 4. (With M. Eastwood) Examples of unbounded homogeneous domains in complex space, Proceedings of the International Conference on Several Complex Variables and Complex Geometry, Beijing, 22–28 August 2004; *Science in China Series A Math.* 48(2005), no. 1 supp., 248–261.
 5. (With B. Easton, P. Maxwell and G. Huttley) A probabilistic method to identify compensatory substitutions for pathogenic mutations, Proceedings of the 5th Asia Pacific Bioinformatics Conference, Hong Kong, 14–17 January 2007; *Advances in Bioinformatics and Comput. Biol.*, vol. 5, World Scientific, Singapore, 2007, pp. 195–204.
 6. Simple elliptic hypersurface singularities: a new look at the equivalence problem, Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS III), Sydney, 15–18 September 2009; Proc. Centre Math. Appl. Austral. Nat. Univ., vol. 43, Austral. Nat. Univ., Canberra, 2010, pp. 9–17.
 7. Examples of application of nil-polynomials to the biholomorphic equivalence problem for isolated hypersurface singularities, Proceedings of the Workshop on Several Complex Variables and Complex Geometry, Taipei, 9–13 July 2012; *Bull. Inst. Math. Acad. Sin. (N.S.)* 8(2013), 193–217.
 8. The reconstruction and recognition problems for homogeneous hypersurface singularities, Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS IV), Kobe, 22–25 November 2011; *Topics on Real and Complex Singularities*, World Scientific, Singapore, 2014, pp. 75–86.
 9. On two methods for reconstructing homogeneous hypersurface singularities from their Milnor algebras, Proceedings of the International Conference on Complex Geometry, Singularities and Related Fields, Beijing, 3–6 August

- 2012; *Methods Appl. Anal.* 21(2014), 391–405.
10. On a family of real hypersurfaces in a complex quadric, Proceedings of the Conference on the Interaction of Geometry and Representation Theory, Vienna, 10–14 September 2012; *Diff. Geom. Appl.* 33(2014) suppl., 259–266.
 11. Duality for binary quartics and ternary cubics arising from their Milnor algebras, Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS V), Sydney, 9–13 September 2013; *Rev. Roumaine Math. Pures Appl.* 60(2015), 471–480.
 12. Examples of reconstruction of homogeneous isolated hypersurface singularities from their Milnor algebras, Proceedings of the International Conference on Complex Analysis and Dynamical Systems VI, Nahariya, 19–24 May 2013; *Contemp. Math.*, vol. 667, Amer. Math. Soc., Providence, RI, 2016, pp. 125–139.
 13. On the image of the associated form morphism, Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS VI), Kagoshima, 23–27 November 2015; *Saitama Math. J.* 31(2017), 89–101.

Conference Proceedings Edited

1. A. Isaev, A. Hassell, A. McIntosh and A. Sikora (Eds.), Proceedings of the National Research Symposium on Geometric Analysis and Applications, Canberra, 26–30 June 2000; *Proc. Centre Math. Appl. Austral. Nat. Univ.*, vol. 39, Austral. Nat. Univ., Canberra, 2001.
2. T. Fukui, A. Harris, A. Isaev, S. Koike and L. Paunescu (Eds.), Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS III), Sydney, 15–18 September 2009; *Proc. Centre Math. Appl. Austral. Nat. Univ.*, vol. 43, Austral. Nat. Univ., Canberra, 2010.
3. S. Koike, T. Fukui, L. Paunescu, A. Harris and A. Isaev (Eds.), Proceedings of the Japanese-Australian Workshop on Real and Complex Singularities (JARCS IV), Kobe, 22–25 November 2011; *Topics on Real and Complex Singularities*, World Scientific, Singapore, 2014.

Submitted Work

1. On the classification by Morimoto and Nagano.

Other Publications

1. (With V. V. Ezhov) Spherical tube hypersurfaces in \mathbb{C}^3 (Russian), Proceedings of the International Symposium on Function Approximation, Ufa, 1987; Bashkirean University Press, Ufa, 1987.
2. Branched mappings of real hypersurfaces in \mathbb{C}^n (Russian), Proceedings of the Conference on Complex Analysis and its Applications, Lvov, 1988; Lvov University Press, Lvov, 1988.
3. (With V. V. Ezhov) Stability of signals in foliated media I (Russian), Annual Report of the Math. Dept. Geological Seminar, Moscow State University Press, Moscow, 1988.
4. (With V. V. Ezhov) Stability of signals in foliated media II (Russian), Annual Report of the Math. Dept. Geological Seminar, Moscow State University Press, Moscow, 1989.
5. Affine classification of spherical tube hypersurfaces that have two minuses in the Levi signature form (Russian), VINITI, Moscow, 1989.
6. Classification of spherical tube hypersurfaces with Levi form having no more than two negative eigenvalues (Russian), Ph.D. Thesis, Moscow State University Press, Moscow, 1990.
7. Linear equivariant embeddings of Stein manifolds (Russian), Proceedings of the Annual Conference in Honour of Lomonosov, Moscow, 1990; Moscow State University Press, Moscow, 1990.
8. Complex Variables: Single vs Several, Proceedings of the Instructional Workshop on Analysis and Geometry, Canberra 23 January–10 February 1995; Proc. Centre Math. Appl. Austral. Nat. Univ., vol. 34, part II, Austral. Nat. Univ., Canberra, 1996, pp. 121–124.

9. Invariants of elliptic and hyperbolic CR-structures of codimension 2, Proceedings of the Hayama Symposium on Several Complex Variables, Hayama, 11–14 December 1998; Hayama, 1999, pp. 45–50.

SELECTED LECTURE INVITATIONS

University of Minnesota, 1994
Purdue University, 1994, 2001
Indiana University, 1994
Washington University, St. Louis, 1994, 2000
University of Illinois, Urbana-Champaign, 1994, 2000, 2001 (4 lectures)
Oklahoma State University, 1994
University of Adelaide, 1994 (2 lectures), 2003, 2011 (2 lectures)
University of Auckland, 1994, 1999
Victoria University, Wellington, 1994
Macquarie University, 1994
Joint Seminar in Complex Analysis
 Max-Planck Institute, Bonn/
 University of Bonn/
 University of Wuppertal, 1996 (3 lectures)
Joint Seminar in Complex Analysis
 Universitat Autònoma de Barcelona/
 Universitat de Barcelona, 1996
Göteborg University, 1996, 1998
University of Lille-I, 1997, 2010 (2 lectures), 2018
University of Provence, 1997
University of Tübingen, 1997, 1999, 2006
Joint Seminar in Complex Analysis
 Uppsala University/
 Stockholm University, 1998
Joint Seminar in Analysis
 Stockholm University/KTH, 1998, 1999
Lie Group Conference

Australian National University, 1998
 Hayama Symposium on Several Complex Variables
 Hayama, Japan, 1998
 The 3rd Korean Several Complex Variables Symposium
 Seoul National University, Korea, 1998 (2 lectures, invited speaker)
 University of Sydney, 1999 (2 lectures)
 The 4th Korean Several Complex Variables Symposium
 Seoul National University, Korea, 1999
 Conference on Holomorphic Mappings
 American Institute of Mathematics, Palo Alto, 2000 (invited speaker)
 University of California, San Diego, 2001
 The International Conference on Several Complex Variables
 A Satellite Conference to ICM 2002
 Gyeong-Ju, Korea, 2002
 CMA National Research Symposium on Differential Geometry and PDE
 Australian National University, Canberra, 2002
 University of South Australia, 2004
 International Conference on Several Complex Variables and Complex Geometry
 Capital Normal University, Beijing, China, 2004
 International Conference on Several Complex Variables
 Steklov Mathematical Institute, Moscow, 2005
 Monash University, 2005
 Analytic and Geometric Theories of Holomorphic and CR Mappings
 Banff Research Station, Canada, 2006
 University of New England (Armidale), 2006
 Complex Analysis Seminar, Ruhr-Universität Bochum, 2006, 2007, 2010, 2012
 Conference on CR Geometry and PDEs
 A Satellite Conference to ICM 2006
 Levico Terme, Italy, 2006
 Universität Göttingen, 2007
 Hong Kong Geometry Colloquium, 2007
 Hong Kong University Geometry Seminar, 2007
 Fudan University, China, 2007 (2 lectures)
 Complex Function Theory and Geometry
 Banach Center, Warsaw, Poland, 2007
 The 8th Korean Several Complex Variables Symposium

Gyeong-Ju, Korea, 2007
 Several Complex Variables Workshop
 University of Adelaide, 2007
 Analysis Seminar, University of New South Wales, 2007
 University of Western Ontario, 2008
 Rutgers University, 2008 (2 lectures), 2011 (2 lectures)
 Conference on CR Geometry and PDEs III
 Levico Terme, Italy, 2008
 Special Year in Analysis and its Applications
 Indian Institute of Science, Bangalore, 2009 (8 lectures)
 Workshop on Complex Geometry
 University of Adelaide, 2009
 Korea-Australia Analysis Forum
 Busan, Korea, 2009
 Workshop on Complex Analysis and Complex Geometry
 Banff Research Station, Canada, 2009
 Conference on CR Geometry and PDEs IV
 Levico Terme, Italy, 2010
 Midwest Several Complex Variables Conference
 Washington University, St. Louis, USA, 2011
 Workshop on Symplectic and CR-methods in Complex Analytic Geometry
 University of New England (Armidale), 2011
 International Workshop on Several Complex Variables and Complex Geometry
 Institute of Mathematics, Academia Sinica,
 Taipei, Taiwan, 2012
 International Conference on Complex Geometry, Singularities and Related Fields
 Tsinghua University, Beijing, China, 2012
 Conference on the Interaction of Geometry and Representation Theory
 Erwin Schrödinger Institute, Vienna, Austria, 2012
 Complex Analysis and Dynamical Systems VI
 Nahariya, Israel, 2013
 Workshop on Complex Geometry and Differential Geometry
 University of New England (Armidale), 2013
 Weizmann Institute of Science, Israel, 2014
 Tel Aviv University, Israel, 2014 (2 lectures)
 ORT Braude College, Israel, 2014

Workshop on Equivalence, Invariants, and Symmetries of Vector Distributions
and Related Structures: from Cartan to Tanaka and Beyond
Institut Henri Poincaré, Paris, France, 2014
Conference on Hyperbolicity in Algebraic Geometry
Ilhabela, Brazil, 2015
Harvard-MIT Algebraic Geometry Seminar, 2016
Northeastern University, 2016
7th Pacific Rim Conference on Mathematics
Seoul National University, Korea, 2016
INDAM Meeting on Geometric Function Theory in Higher Dimension
Cortona, Italy, 2016
Università Roma Tre, 2016
International Conference on Singularity Theory
Tsinghua Sanya International Mathematics Forum, Sanya, China, 2017
Conference on CR Geometry and PDEs VIII,
Levico Terme, Italy, 2018
Bergische Universität Wuppertal, 2018
The 7th Russian-Armenian Workshop on Mathematical Analysis,
Mathematical Physics and Analytical Mechanics
Yerevan, Armenia, 2018
Conference on Harmonic Analysis and PDE,
Holon, Israel, 2019
Conference on Complex Analysis and Geometry XXIV,
Levico Terme, Italy, 2019

STUDENTS DIRECTED

J. Sawon, vacation scholar, 1993
L. Rogers, B.Sc. Hon., 1994
G. Thorpe, vacation scholar, 1994
T. Gifford, B.Sc. Hon., 1995
Revantha Ramanayake, distinguished scholar, 2002
Sarah Bolt, Ph.B., 2003–2007
Matthew Pollard, Ph.B., 2004–2007

Brett Easton, Ph.D., 2004–2007
 Raymond Sammut, Ph.D., 2005–2009
 Galina Prosselkova, B.Sc. Hon., 2004–2005
 Susan Batley, Ph.B., Advanced Studies Instructorship, 2005
 Michael Carmody, B.Sc. Hon., 2006 (jointly with A. Neeman)
 Michael Carmody, M.Sc., 2007–2009 (jointly with A. Neeman)
 Ben Lim, Ph.B., 2011–2012
 Julian Bailey, B.Sc. Hon., 2011–2012
 Harry Slatyer, B.Sc. Hon., 2012
 Ananth Kadekodi, Ph.B., 2013
 Gino Lu, B.Sc. Hon., 2015; Ph.D., since 2016
 Elliot Herrington, M.Sc., 2016; Ph.D., since 2017
 Kyle Broder, B.Sc. Hon., 2018

COURSES TAUGHT

Complex Analysis, 2nd year, Moscow State University, 1989–1992
 Functional Analysis, 3rd year, Moscow State University, 1989–1992
 Measure Theory, 3rd year, Moscow State University, 1989–1992
 B12, Advanced Calculus 2, 2nd year, ANU, 1993
 C23H, General Topology, 3rd and 4th years, ANU, 1995
 C47H, Several Complex Variables, 3rd and 4th years, ANU, 1993, 1995
 2005
 MAN420, Complex Analysis, 3rd year, Göteborg University, 1998
 MATH2030, Calculus, 2nd year, ANU, 1999
 MATH3228, Complex Analysis, 3rd and 4th years, ANU, 1994, 1996,
 1999–2001, 2006–2009, 2011–2012, 2015, 2017
 MATH344, Real Analysis, University of Illinois, Urbana-Champaign, 2001
 MATH242, Calculus, University of Illinois, Urbana-Champaign, 2001
 MATH2307, Bioinformatics and Biological Modelling, ANU, 2002–2009
 MATH3017, Advanced Bioinformatics, ANU, 2002–2003
 MATH3353, Topics in Bioinformatics Honours (joint with C. Burden),
 2012–2013
 MATH3349, Several Complex Variables, 2013
 MATH1013, Mathematics and Applications 1, 2008–2010, 2015

MATH1115, Mathematics and Applications 1 Honours, 2011–2013

OTHER ACTIVITIES

Associate Editor of *The Journal of Geometric Analysis*

Associate Editor of *The Journal of Mathematical Analysis and Applications*

International Reader of ARC Discovery grant applications

PhB Convener, MSI, ANU, since 2015

Mathematics Honours Convener, MSI, ANU, 2005–2014

Member of the Mathematical Sciences Research Visitors Program
Committee, MSI, ANU

Coordinator of the Relay Contest for the Maths Day, MSI, ANU, 2008–2012

Member of the Mathematical Sciences Research Visitors Program
Committee, SMS, ANU, 1995–1999

Member of the Graduate Studies Committee, SMS, ANU, 1995–2000

Colloquium Organiser, SMS, ANU, 1994–1998

Member of the Organising Committee of Lie 96 Conference, SMS, ANU, 1996

Member of the Organising Committee of the Conference on Geometric
Analysis and Applications, SMS, ANU, 2000

Member of the Organising Committee of the Workshop on Several Complex
Variables and CR-geometry, University of New England (Armidale), 2006

Member of the Organising Committee of the 8th Pacific Rim Geometry
Conference, Murramarang Resort, 2006

Organiser of the National Research Symposium in
Several Complex Variables and Geometry, MSI, ANU, 2008

Member of the Organising Committee of the Japanese-Australian
Real and Complex Singularities Workshop, University of Sydney, 2009

Member of the Organising Committee of the International Conference on

the Geometry of Differential Equations, ANU, 2011
Member of the Organising Committee of the Japanese-Australian
Real and Complex Singularities Workshop, Kobe, Japan, 2011
Member of the Organising Committee of the Japanese-Australian
Real and Complex Singularities Workshop, University of Sydney, 2013
Member of the Organising Committee of the Geometric Invariance and
Nonlinear Partial Differential Equations Conference, ANU, 2014