Curriculum Vitae: Emil J. Straube

Education:

1972-1977	Mathematics at ETH, Zurich
1977	Diploma in Mathematics (dipl. math. ETH), Diploma Thesis with Prof. A. Pfluger on: "Co-Analytic Toeplitz Operators on Weighted H^2 Spaces"
August 1983	Doctorate in Mathematics at ETH, Dissertation: "Cauchy-Riemann Distributions and Boundary Values of Analytic Functions", Diss. ETH No. 7351, Professor K. Osterwalder, Advisor

Positions Held:

1983-1984	Visiting Research Scholar, Mathematics Department, Univ. of North Carolina at Chapel Hill, (funded by a research fellowship from the Swiss National Science Foundation)
1984-1986	Visiting Assistant Professor, Indiana University, Bloomington
1986-1987	Visiting Assistant Professor, University of Pittsburgh
1987-1991	Assistant Professor, Texas A&M University
1991-1996	Associate Professor, Texas A&M University
1996-present	Professor, Texas A&M University
Sept. 2011-Aug. 2019	Professor and Head, Department of Mathematics, Texas A&M University

Research visiting positions at:

Forschungsinstitut für Mathematik, ETH Zurich, Switzerland
Max Planck Institut für Mathematik, Bonn, Germany,
Mathematical Sciences Research Institute, Berkeley, CA
Erwin Schrödinger Int. Inst. for Math. Physics, Vienna, Austria
University of Wuppertal, Wuppertal, Germany

Grants/Funding

1983-1984	Swiss National Science Foundation postdoctoral fellowship, sfr 32,000.-
1985	Indiana University Summer Faculty Fellowship,$4,000.-
1990-1992	NSF: DMS-9002541 (Co-PI with H.P. Boas),$61,000.-
1992-1994	NSF: DMS-9203514 (Co-PI with H.P. Boas),$30,000.-
1995-1998	NSF: DMS-9500916 (Co-PI with H.P. Boas), $165,915.-

1996-1999	NSF: DMS-9632028 (Co-PI with Boas, Cao, Lima-Filho, Pitts, Stiller, Thomas), \$400,334.-
1998-2001	NSF: DMS-9801539 (Co-PI with H.P. Boas), \$309,366.-
2001-2005	NSF: DMS-0100517 (Co-PI with H.P. Boas), \$255,000.-
2003-2005	Erwin Schrödinger Inst., Vienna, (Co-PI with F. Haslinger and H. Upmeier), \$60,000.- (for Special Semester in Complex Analysis and Operator Theory)
2005-2008	NSF: DMS-0500842 (PI), \$122,133.-
2008-2010	Erwin Schrödinger Inst., Vienna, (Co-PI with F. Haslinger and B. Lamel), \$94,000.- (for Program 'The $\overline{\partial}$-Neumann Problem: Analysis, Geometry, and Potential Theory', Oct. 27 - Dec. 24, 2009)
2008-2012	NSF: DMS-0758534 (PI), \$286,926.-
2014-2015	NSF: DMS-15000361 (PI), \$48,400.- (for Conference on Complex Analysis and Geometry in Several Complex Variables, TAMUQ, Doha, Qatar, Jan. 4-8, 2015)
2015	BIRS workshop on Harmonic Analysis, $\overline{\partial}$, and CR Geometry, (organizer/Co-PI with T.Barron, S.Fu, M.Pramanik, A.Raich, and A.Tumanov), CMO, Oaxaca, Mexico, Oct. 18 - Oct. 23, 2015, funding for accommodation and meals for 42 participants
2015	Erwin Schrödinger Inst., Vienna, (Co-PI with F. Haslinger and B. Lamel), \$19,000.- (for workshop 'Several Complex Variables and CR Geometry, Nov. 3–13, 2015)
2015-2018	Qatar National Research Fund Grant NPRP 7-511-1-98, (Co-PI, Nordine Mir PI), \$729,316.73
2023-2026	NSF: DMS-2247175 (PI, J.Treuer Co-PI), \$323,334.-

Honors and Awards

1995 Bergman Prize (jointly with H.P. Boas) from the American Math. Society

1997 Dept. of Mathematics Outstanding Service Award

1998 Association of Former Students, Texas A&M, Distinguished Achievement Award in Research

1998 Dept. of Mathematics Outstanding Teaching Award

2005 Senior Research Fellowship, Erwin Schrödinger International Institute for Mathematical Physics, Vienna

2006 Invited Speaker at the International Congress of Mathematicians (ICM), Madrid

2007 AMS Invited Address, Spring Central Section Meeting, Miami University, Oxford, Ohio

2013 Fellow of the American Mathematical Society

Conference Presentations, Lectures, Etc (since 1990)

AMS meeting (Southeast section) in Fayetteville, Ark., March 23-24, 1990, invited talk in special session on Complex Analysis

University of Düsseldorf, dept. colloquium, summer 1990

Max Planck Institute, Bonn, 4 lectures, summer 1990

Meeting on Partial Differential Equations in Complex Analysis, Oberwolfach, June 17-23, 1990, invited talk on 'Sobolev estimates for the $\bar{\partial}$-Neumann operator'

University of Chicago, Complex Analysis Seminar, 1990

University of Wisconsin, Analysis Seminar, 1990

AMS meeting in Tampa, Fl., March 22-23, 1991, invited talk in special session on Several Complex Variables

University of Wuppertal, 2 seminar talks, May 1992

Swiss Federal Institute of Technology, Zürich, analysis seminar, June 1992

University of Michigan, Analysis Seminar, 2 talks, Jan. 1993

AMS meeting in Manhattan, KS, March 25-26, 1994, invited talk in special session on Several Complex Variables and Partial Differential Equations

3$^{\mathrm{rd}}$ Analysis Colloquium, University of Bern, Switzerland, August 1994

AMS meeting in Stillwater, OK, October 1994, invited talk in special session on Several Complex Variables

Special Program in Several Complex Variables, MSRI Berkeley (1995-96), 2 lectures, Sept. 1995

Workshop on Analytic and PDE Methods in Several Complex Variables, MSRI Berkeley, Nov. 6-10, 1995

AMS meeting in Orlando, Florida, Jan. 10-13, 1996, special session on Analytic Methods in Several Complex Variables

AMS meeting in Iowa City, Iowa, March 22-23, 1996, special session on Several Complex Variables

AMS meeting in Memphis, Tennessee, March 1997, Special Session on Complex Analysis

International Conference on Complex Analysis and Applications, July 1997, Stefan Banach Center, Warsaw, Poland

AMS meeting in Philadelphia, PA, April 1998, Special Session in PDEs in Complex Analysis

International Conference on Real Methods in Complex Analysis, March 1999, Oberwolfach, Germany

AMS/Sociedad Matematica Mexicana joint meeting in Denton, TX, May 1999, Special Session in Complex Analysis

International Conference on Complex Analysis and Geometry, Ohio Sate Univ., June 1999

AMS meeting in Salt Lake City, Utah, Sept. 1999, Special Session in Complex Variables and Operator Theory

Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria, Nov. 1999

AMS meeting at Notre Dame, IN, April 2000, Special Session on Several Complex Variables

Workshop on Analytic Methods in Several Complex Variables, May 2000, Univ. of Hong Kong, Hong Kong, China

Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria, Nov. 2000

AMS/Sociedad Matematica Mexicana meeting in Morelia, Mexico, May 2001, Special Session on Complex Analysis

AMS meeting in Irvine, CA, Nov. 2001, Special Session in Harmonic and Complex Analysis

Univ. of Wyoming, Laramie, March 2002, departmental colloquium

International Conference on Several Complex Variables and Complex Geometry (in honor of the 70th birthdays of R. Gunning and J. Kohn), Princeton University, Sept. 2002

International conference: Relle Methoden in der komplexen Analysis, Oberwolfach, Germany, Feb. 2003

Midwest Several Complex Variables Conference, Syracuse University, Oct. 10-12, 2003

American Mathematical Society, Special Session on Banach Algebras and Several Complex Variables, Chapel Hill, North Carolina, Oct. 24-25, 2003

US-Hong Kong Conference on Recent Developments in Several Complex Variables, Cauchy-Riemann Geometry, and Complex Algebraic Geometry in honor of Y.-T. Siu's 60th birthday, University of Hong Kong, Nov. 20-24, 2003

University of California at San Diego, departmental Analysis Seminar, March 2, 2004

Sixth International Joint Meeting of the American Math. Society and the Sociedad Matematica Mexicana, Special Session on Complex Analysis and Operator Theory, Houston, TX, May 12-15, 2004

American Mathematical Society, Special Session in Several Complex Variables and CR Geometry, Albuquerque, NM, Oct. 16-17, 2004

AMS/MAA Joint Mathematics Meeting, Special Session in Complex and Functional Analysis, Atlanta, Georgia, Jan. 5-8, 2005

International Conference on Several Complex Variables, in honor of Sheng Gong's 75th birthday, Chinese University of Science and Technology, Hefei, China, June 20-24, 2005

Workshop: Complex Analysis and Partial Differential Equations, Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Oct. 24-28, 2005

Erwin Schrödinger International Institute for Mathematical Physics, Vienna, 'Lectures on the $\mathcal{L}^2$-Sobolev theory of the $\overline{\partial}$-Neumann problem', approx. 28 hrs of lectures, May-June and Oct.-Nov. 2005

Masaryk University, Brno, Czech Republic, departmental colloquium, Nov. 9, 2005

Second Brazilian School of Differential Equations, IMPA, Rio de Janeiro, Jan. 23-27, 2006

Degenerate Structures in Complex Analysis, International conference in honor of Klas Diederich, Bergisch Gladbach, Germany, May22 - May26, 2006

International Conference on Several Complex Variables in honor of Qi-Keng Lu's 80th birthday, Chinese Academy of Sciences, Beijing, June 5 - June 9, 2006

International Conference in PDE, Complex Analysis, and Differential Geometry in honor of Salah Baouendi, University of Notre Dame, June 11-16, 2006

International Congress of Mathematicians (ICM), Madrid, invited lecture in Analysis Section, Aug. 22 - 30, 2006

AMS meeting at University of Arkansas, Special session on Boundary Operators in Real and Complex Domains, Nov.3-4, 2006

AMS meeting at Miami University, Oxford, Ohio, Invited Address, March 16-17, 2007

University of Missouri-Rolla, departmental colloquium, April 13, 2007

Georgetown University, departmental colloquium, April 27, 2007

Joint Intl. Meeting of AMS and Polish Math. Soc., Speciasl session on Complex Analysis and Operator Theory, July 31-Aug. 3, 2007

IV Workshop on Geometric Analysis on PDEs and Several Complex Variables, Serra Negra, Brazil, Aug.6-11, 2007

AMS meeting at Rutgers-New Brunswick, Special session on Geometric Analysis of Complex Laplacians, Oct.6-7, 2007

AMS meeting at Louisiana State Univ., Baton Rouge LA, Special session on Harmonic Analysis and PDEs in Real and Complex Domains, March 28-30, 2008

Workshop on Problems Related to the Bergman Kernel, Institute of Mathematics, Chinese Academy of Sciences, Beijing, June 9-13, 2008

Colloquium at Institute of Mathematics, Chinese Academy of Sciences, June 13, 2008

Conference on Analysis and Geometry of Several Complex Variables, Mathematics Inst. of Romanian Academy (IMAR), Bucharest, Romania, June 24-28, 2008

Workshop/Conference on CR Geometry, PDEs, and Invariant Theory, Prague, Czech Republic, in honor of J.J.Kohn, June 30-July 4, 2008

Conference on Several Complex Variables and its Connections with PDEs and Geometry, in honor of Linda Rothschild, Fribourg, Switzerland, July 7-11, 2008

AMS meeting at the University of Illinois, Urbana-Champaign, Special session on Holomorphic and CR Mappings, March 27–29, 2009

University of Houston, Complex Analysis and Complex Geometry Seminar, Nov. 11, 2009

Program on The $\overline{\partial}$-Neumann Problem: Analysis, Geometry, and Potential Theory, Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Oct. 27-Dec. 23, 2009

University of Vienna, Dept. of Mathematics, colloquium for graduate students, Dec. 16, 2009

University of Vienna, Dept. of Mathematics, departmental colloquium, Dec. 16, 2009

Workshop on PDEs in Real and Complex Spaces, University of Padua, Italy, Feb. 5, 2010

Southern California Analysis and Partial Differential Equations Conference, UC San Diego, April 24–25, 2010

Workshop: CR-Geometry and PDE's - IV, Levico Terme, Trento, Italy, June 6-11, 2010

International Workshop on Operator Theory and Applications, Technische Universität Berlin, Special Session: The interplay between operator theory and the $\overline{\partial}$-Neumann problem, Berlin, Germany, July 12–16, 2010

Rutgers University, Complex Analysis and Geometry Seminar (this week held at Camden campus), October 22, 2010

Workshop: The $\overline{\partial}$-Neumann Problem: Analysis, Geometry, and Potential Theory, Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Dec. 13–22, 2010

AMS meeting at College of the Holy Cross, Worcester, MA, Special session on Complex Analysis and Banach Algebras, April 9–10, 2011

37th Annual New York Regional Graduate Mathematics Conference, Syracuse University, Keynote Address, April 15–16, 2011

Midwest Several Complex Variables Conference, Washington University, St. Louis, May 12–14, 2011

AMS meeting at University of Kansas, special session on Interplay between Geometry and PDEs in Several Complex Variables, March 30–April 1, 2012

International workshop on Several Complex Variables and Complex Geometry, Institute of Mathematics, Academia Sinica, Taipei, Taiwan, July 9–July 13, 2012

AMS meeting at University of Akron, special session on Complex Analysis and its Broader Impacts, October 20–21, 2012

International workshop on Several Complex Variables and Partial Differential Equations, Serra Negra, Brazil, August 5–9, 2013

AMS meeting at Temple University, special session on Several Complex Variables and CR Geometry, Oct. 12–12. 2013

University of Arkansas Spring Lecture Series, April 10–12, 2014

American Institute of Mathematics, Palo Alto, workshop on The Cauchy–Riemann Equations in Several Variables, invited workshop participant, June 9–13, 2014

CIRM Conference CR Geometry and PDEs–VI, Levico Terme, Italy, June 23–27, 2014

Hayama Symposium on Several Complex Variables, Hayama, Japan, July 19–22, 2014

AMS meeting at Michigan State University, special session on Complex Analysis in Several Variables and its Applications, March 13-15, 2015

8th Workshop on Geometric Analysis of PDEs and Several Complex Variables, Serra Negra, Brazil, August 3–7, 2015

Departmental Colloquium, Central Michigan University, Mount Pleasant Michigan, Oct. 1, 2015

Analysis and Applied Mathematics Seminar, Central Michigan University, Mount Pleasant, Michigan, Oct. 2, 2015

Several Complex Variables and CR Geometry, workshop at the Erwin Schrödinger Institute, Vienna, Nov.3–Nov.15, 2015

School in Complex Analysis and Geometry, Tsinghua Sanya International Mathematics Forum, Sanya, China; four lectures on L^2–*Sobolev theory for the complex Green operator*, January 2016

Conference on Complex Geometry and the Cauchy–Riemann Equation, Academy of Science, Oslo, August 22–26, 2016

Conference on Analysis and Geometry in Several Complex Variables, Doha, Qatar, January 8–12, 2017

Midwest Several Complex Variables Conference, Brown University, Providence, RI, June 9–11, 2017

9th Workshop on Geometric Analysis of PDEs and Several Complex Variables, Serra Negra, Brazil, August 7–11, 2017

UFSCar International Workshop on Partial Differential Equations and Complex Analysis, Universidade Federal de Sao Carlos, Sao Carlos, Brazil, August 13–17, 2018

AMS meeting at the University of Michigan, special session on Canonical Operators in Several Complex Variables and Related Topics, Ann Arbor, Michigan, October 20–21, 2018

Analysis and CR Geometry, workshop at the Erwin Schrödinger Institute Vienna, Austria, invited participant and honoree, December 10–14, 2018

Analysis and Geometry in Several Complex Variables III, Texas A&M University at Qatar, Doha, Qatar, invited participant and honoree, January 6–10, 2019.

Cauchy–Riemann Equations in Higher Dimensions, ICTS, Bangalore, India, mini course on Compactness in the $\overline{\partial}$–Neumann problem (5 one hour lectures), July 29–August 2, 2019.

AMS meeting at the University of Wisconsin, special session on Several Complex Variables, Madison, Wisconsin, Sept. 14–15, 2019.

Northeastern Analysis Meeting (NEAM), Syracuse University, Oct. 4–6, 2019.

AMS meeting at UC Riverside, special seesion on Several Complex Variables and Complex Dynamics, Riverside, CA, Nov. 9–10, 2019.

University of California Irvine, departmental colloquium, February 27, 2020.

Virtual Conference on Several Complex Variables, August 18-21, 2020.

AMS meeting at University of Utah (virtual), special session on Several Complex Variables: Emerging Applications, Connections, and Synergies, Oct. 24–25, 2020.

East–West SCV Virtual Seminar, talk on Feb.2, 2021.

2021 INDAM Workshop on Bergman Projections and Related Topics, June 3–6, 2021 (via Zoom).

Colloquium, University of Toledo, Nov. 5, 2021 (via Zoom).

JMM 2022, Special Session on Several Complex Variables, Geometric PDEs and CR Geometry, April 8, 2022 (virtual) (45 min.).

Colloquium, UT Rio Grande Valley, April 8, 2022 (via Zoom).

Midwest Several Complex Variables Conference, University of Notre Dame, April 29-May 1, 2022

PDE and Differential Geometry Seminar, University of Connecticut, Storrs, November 14, 2022 (via Zoom)

JMM 2023, Boston, Special Session on PDEs and Complex Analysis, Jan. 7, 2023

2023 Midwest Several Complex Variables Meeting, Ohio State University, April 28-30, 2023

11th Workshop on Geometric Analysis of PDEs and Several Complex Variables, Serra Negra, Brazil, July 31–August 4, 2023

List of Publications

1. "On the Existence of Invariant, Absolutely Continuous Measures", Comm. Math. Phys. **81** (1981), 27–30.

2. "CR-Distributions and Analytic Continuation at Generating Edges", Math. Z. **189** (1985), 131–142.

3. "Harmonic and Analytic Functions Admitting a Distribution Boundary Value", Ann. Scuola Norm. Sup. Pisa **11**, Nr. 4 (1984-1985), 559–591.

4. (with J. Cima) "Boundary Uniqueness Theorems in C^n", Trans. Am. Math. Soc. **294(1)** (1986), 333–339.

5. "Exact Regularity of Bergman, Szegö and Sobolev Space Projections in Non Pseudo-convex Domains", Math. Z. **192** (1986), 117–128.

6. "Orthogonal Projections onto Subspaces of the Harmonic Bergman Space", Pacific J. Math. **123(2)** (1986), 465–476.

7. "Power Series with Integer Coefficients in Several Variables", Comment. Math. Helv. **62** (1987), 602–615.

8. (with J. Conway and J. Dudziak) "Isometrically Removable Sets for Functions in the Hardy Space are Polar", Mich. Math. J. **34** (1987), 267–273.

9. (with H.P. Boas) "Integral Inequalities of Hardy and Poincaré Type", Proc. Amer. Math. Soc. **103**, Nr. 1 (1988), 172–176.

10. (with H.P. Boas and S.-S. Chen) "Exact Regularity of Bergman and Szegö Projections on Domains with Partially Transverse Symmetries", Manuscripta Math. **62** (1988), 467–475.

11. (with H.P. Boas) "Complete Hartogs Domains in C^2 Have Regular Bergman and Szegö Projections", Math. Z. **201** (1989), 441–454.

12. "Interpolation between Sobolev and between Lipschitz Spaces of Analytic Functions on Starshaped Domains", Trans. Amer. Math. Soc. **316**, Nr. 2 (1989), 653–671.

13. (with H.P Boas) "Equivalence of Regularity for the Bergman Projection and the $\bar{\partial}$-Neumann Operator", Manuscripta Math. **67** (1990), 25–33.

14. (with H.P. Boas) "Sobolev Estimates for the $\bar{\partial}$-Neumann Operator on Domains in $\mathbb{C}^n$ Admitting a Defining Function that is Plurisubharmonic on the Boundary", Math. Z. **206** (1991), 81–88.

15. (with H.P. Boas) "Sobolev Estimates for the Complex Green Operator on a Class of Weakly Pseudoconvex Boundaries", Commun. in Partial Differential Equations **16(10)** (1991), 1573–1582.

16. (with H.P. Boas) "The Bergman Projection on Hartogs Domains in $\mathbb{C}^2$", Trans. Amer. Math. Soc. **331**, Nr. 2 (1992), 529–540.

17. (with H.P. Boas) "On Equality of Line Type and Variety Type of Real Hypersurfaces in $\mathbb{C}^n$", J. Geometric Analysis **2**, Nr. 2 (1992), 95–98.

18. (with H.P. Boas) "De Rham Cohomology of Manifolds Containing the Points of Infinite Type, and Sobolev Estimates for the $\bar{\partial}$-Neumann Problem", J. Geometric Analysis **3**, Nr. 3 (1993), 225–235.

19. "A Remark on Hölder Smoothing and Subellipticity of the $\bar{\partial}$-Neumann Operator", Commun. Partial Diff. Equations, **20(1&2)** (1995), 267–275.

20. (with H.P. Boas and J. Yu) "Boundary Limits of the Bergman Kernel and Metric", Michigan Math. Journal, **42**, Nr. 3 (1995), 449–461.

21. (with H.P. Boas) "Global Regularity of the $\bar{\partial}$-Neumann Problem: a Survey of the $\mathcal{L}^2$-Sobolev Theory", invited survey for *Current Developments in Several Complex Variables*, Proceedings of Special Year in Several Complex Variables at MSRI Berkeley, 1995-1996, pp. 79–111, Y.T. Siu and M. Schneider (eds.), Cambridge University Press, 1999.

22. "Plurisubharmonic functions and subellipticity of the $\bar{\partial}$-Neumann problem on non-smooth domains", Math. Research Lett. **4** (1997), 459–467.

23. (with S. Fu) " Compactness of the $\bar{\partial}$-Neumann Problem on Convex Domains", Journal of Functional Analysis **159** (1998), 629–641.

24. (with H.P. Boas and S. Fu) "The Bergman Kernel Function: Explicit Formulas and Zeroes", Proceedings of the Amer. Math. Soc. **127**, Nr. 3 (1999), 805–811.

25. (with S. Fu), "Compactness in the $\bar{\partial}$-Neumann Problem", invited contribution (I was a Principal Speaker) to Complex Analysis and Geometry, J.McNeal ed., Ohio State Univ. Math. Res. Inst. Publ. **9** (2001), 141–160.

26. "Good Stein Neighborhood Bases and Regularity of the $\bar{\partial}$-Neumann Problem", Illinois J. Math. **45**, Nr. 3 (2001), 865–871.

27. (with M. Sucheston) "Plurisubharmonic Defining Functions, Good Vector Fields, and Exactness of a Certain One Form", Monatshefte für Mathematik **136** (2002), 249–258.

28. (with S. Fu), "Semi-Classical Analysis of Schrödinger Operators and Compactness in the $\bar{\partial}$-Neumann Problem", Journal of Mathematical Analysis and Applications **271** (2002), 267–282, correction in **280** (2003), 195-196.

29. (with M. Sucheston) "Levi Foliations in Pseudoconvex Boundaries and Vector Fields that Commute Approximately with $\bar{\partial}$", Transactions of the American Math. Society **355**, Nr. 1 (2003), 143–154.

30. "Geometric conditions which imply compactness of the $\bar{\partial}$-Neumann operator", Annales de l'Institut Fourier **54**, fasc. 3 (2004), 699–710.

31. (with Sonmez Sahutoglu) "Analytic Discs, Plurisubharmonic Hulls, and Non-Compactness of the d-bar-Neumann Operator", Mathematische Annalen **334** (2006), 809–820.

32. "Aspects of the $\mathcal{L}^2$-Sobolev Theory of the $\overline{\partial}$-Neumann Problem", Proceedings of the International Congress of Mathematicians, Madrid, Spain, vol.2 (2006) European Math. Soc., 2006, 1453–1478.

33. (with Samangi Munasinghe) "Complex Tangential Flows and Compactness of the $\overline{\partial}$-Neumann Operator", Pacific J. Math. **232** (2007), 343–354.

34. "A Sufficient Condition for Global Regularity of the d-bar-Neumann Operator", Advances in Math. **217** (2008), 1072–1095.

35. (with A. Raich) "Compactness of the Complex Green Operator", Math. Res. Lett. **15**, no. 4 (2008), 761–778.

36. (with M. Çelik) "Observations Regarding Compactness in the $\overline{\partial}$-Neumann Problem", Complex Variables and Elliptic Equations **54**, no. 3-4 (2009), 173–186.

37. "Lectures on the $\mathcal{L}^2$-Sobolev Theory of the $\overline{\partial}$-Neumann Problem", monograph (ca. 210 p.), ESI Lectures in Mathematics and Physics, European Math. Soc. Publishing House, Zürich, 2010.

38. (co-editor, with P. Ebenfelt, N. Hungerbühler, J. Kohn, and N. Mok) "Complex Analysis: several complex variables and connections with PDEs and geometry" (Fribourg 2008), Trends in Mathematics, Birkhäuser Verlag, 2010.

39. "The Complex Green Operator on CR-Submanifolds of $\mathbb{C}^n$ of Hypersurface Type: Compactness", Trans. Amer. Math. Soc. **364**, no. 8 (2012), 4107–4125.

40. (with Samangi Munasinghe) "Geometric Sufficient Conditions for Compactness of the Complex Green Operator", J. Geom. Analysis **22**, no. 4 (2012), 1007–1026.

41. (with A.-K. Herbig and J. D. McNeal) "Duality of Holomorphic Function Spaces and Smoothing Properties of the Bergman Projection", Trans. Amer. Math. Soc. **366**, no. 2 (2014), 647–665.

42. (with Yunus Zeytuncu) "Sobolev Estimates for the Complex Green Operator on CR Submanifolds of Hypersurface Type", Inventiones Mathematicae **201**, no. 3 (2015), 1073–1095.

43. (with Mustafa Ayyürü) "Compactness of the $\overline{\partial}$–Neumann operator on the intersection of two domains", Analysis and Geometry, A. Baklouti et al. (eds.), Springer Proceedings in Mathematics & Statistics **127** (2015), 9–15.

44. (with Séverine Biard) "L^2–Sobolev Theory for the Complex Green Operator", International Journal of Mathematics **28**, no. 9 (2017).

45. (co–editor with Shiferaw Berhanu and Nordine Mir) "Analysis and Geometry in Several Complex Variables" (Doha, Qatar, 2015), Contemporary Mathematics **681**, American Mathematical Society, 2017.

46. (with Séverine Biard) "Estimates for the Complex Green Operator: Symmetry, Percolation, and Interpolation", Transactions of the American Mathematical Society **371** (2019), 2003-2020.

47. (with Mehmet Çelik and Sönmez Şahutŏglu) "Convex Domains, Hankel Operators, and Maximal Estimates", Proceedings of the American Mathematical Society **148**, no. 2 (2020), 751–764.

48. (with Mehmet Çelik and Sönmez Şahutŏglu) "Compactness of Hankel Operators with Continuous Symbols on Convex Domains", Houston J. Math. **46**, no. 4, (2020), 991–1002.

49. (with Mehmet Çelik and Sönmez Şahutŏglu) "A sufficient condition for compactness of Hankel operators", Journal of Operator Theory **89**, no. 1, (2023), 75–85.

50. (with Bingyuan Liu) "Diederich–Fornæss index and global regularity in the $\overline{\partial}$–Neumann problem: domains with comparable Levi eigenvalues", preprint, July 2022.

51. (with Tanuj Gupta and John N. Treuer) "Modifications of the Levi core", preprint, August 2023.

Membership in Professional Societies

American Mathematical Society (AMS)
Societé Mathématique Suisse
European Mathematical Society
Association for Women in Mathematics

Graduate Teaching at A&M

Classes

Math 601, 602, 611, 612, 617, 618, 650, 663, 685, 689, 691.

Ph. D. students

– *Marcel Sucheston*, Dec. 2000 (Ph. D. awarded posthumously)

– *Sönmez Şahutoğlu*, May 2006, post-doc, University of Michigan 2006–09; Assistant Professor, University of Toledo, Sept. 2009–14, Associate Professor 2014–present

– *Samangi Munasinghe*, Aug. 2006, post-doc, College of the Holy Cross 2006–07; post-doc, University of Arkansas 2007–10; Assistant Professor, Western Kentucky University, 2010–16, Associate Professor 2016–present

– *Mehmet Çelik*, May 2008, Assistant Professor, University of Arkansas-Fort Smith, 2008–10; Assistant Professor (tenure track), University of North Texas at Dallas, 2010–15; Assistant Professor (tenure track), Texas A&M University – Commerce, 2015 – 18, Associate Professor 2018–present

– *Mustafa Ayyürü*, August 2014, Master of Quantitative Finance program, Rutgers Business School, Newark, NJ, 2014–16, Quantitative Financial Analyst, Bank of America, 2016–present

– *Yue Zhang*, August 2014, Visiting Assistant Professor, University of Arkansas, 2014–15; Visiting Assistant Professor, UC Irvine, 2015 – 2018, Zhe Jiang Normal University, China, 2018–present

– *Tanuj Gupta*, current

Post-Docs co-mentored (mostly with Boas, some with Boggess)

1993-96: *Jiye Yu* (Ph.D. 1993, Washington Univ., now in industry)

1996-98: *Siqi Fu* (Ph.D. 1994, Washington Univ., awarded an AMS Centennial Fellowship in 2000, now Professor at Rutgers-New Brunswick)

1997-99: *Marshall Whittlesey* (Ph.D. 1997, Brown Univ., now Professor at Cal. State San Marcos)

1998-2000: *Rich Stankewitz* (Ph.D. 1998, Univ. of Illinois, now Professor at Ball State University)

1999-2001: *Eugene Mihailescu* (Ph.D. 1999, Univ. of Michigan, went to Inst. of Mathematics, Romanian Academy of Sciences)

2001-04: *Dariush Ehsani* (Ph.D. 2001, Univ. of Michigan, next position: Assistant Professor at Penn State Lehigh Valley)

2003-06: *Dan Jupiter* (Ph.D 2003, Univ. of Michigan, next position: a postdoctoral Research Associate in the Department of Systems Biology and Translational Medicine, Texas A&M Health Science Center)

2005-08: *Andrew Raich* (Ph.D. 2005, Univ. of Wisconsin, now Professor at University of Arkansas)

2009-10: *Chris Hammond* (Ph.D. 2009, Univ. of Michigan, moved to NSA)

2010-13: *Yunus Zeytuncu* (Ph.D 2010, Ohio State University, now Professor at University of Michigan–Dearborn)

2014-16: *Séverine Biard* (Ph.D 2013, Université Pierre et Marie Curie, Paris VI, now Maître de conférences, Université Polytechnique Hauts-de-France)

2021 – 2023: *John Treuer* (Ph.D. 2021, UC Irvine, now Visiting Assistant Professor UC San Diego)

Service

Outside A&M

– AMS Meeting in Indianapolis, April 11-12, 1986. Organizer; special session on Several Complex Variables

– AMS meeting in Denton, TX, Nov. 2-3, 1990. Organizer; special session in Several Complex Variables.

– AMS meeting in College Station, Texas, Oct. 22-23, 1993, organizer; special session in Several Complex Variables

– AMS Annual Meeting, San Antonio, TX, Jan. 1999, co-organizer of Special Session in Several Complex Variables

– Program in Complex Analysis, Operator Theory, and Applications to Mathematical Physics, Erwin Schrödinger Intl. Inst. for Math. Physics, Vienna, Fall 2005, organizer (with F. Haslinger and H. Upmeier)

– AMS meeting in Oxford, Ohio, March 16-17, 2007, organizer (with J. McNeal); special session on PDE Methods in Several Complex Variables

– Member of Scientific Committee (with J.J.Kohn, P.Ebenfelt, and F.Forstneric), Several Complex Variables and Connections with PDEs, Fribourg, Switzerland, July 7-11, 2008

– Program on The $\overline{\partial}$-Neumann Problem: Analysis, Geometry, and Potential Theory, Erwin Schrödinger Intl. Inst. for Math. Physics, Vienna, Oct.27–Dec.23, 2009, organizer (with F. Haslinger and B. Lamel), follow up short program Dec. 13–22, 2010

– referee for various journals, NSF, Austrian Academy of Sciences, Deutsche Forschungsgemeinschaft, Austrian Science Fund, Università di Padova Research Program

– Mathematical Sciences Research Institute (MSRI), Council of Academic Sponsors, Committee to organize panel discussion at annual meeting, 2011 – 2014

– Institute for Mathematics and Applications (IMA), Committee on 2013 special programs

– Florida International University, external program reviewer for the Mathematics program, April 2013

– AMS travel grants for ICM panelist, Dec. 2013–Jan. 2014

– Central Michigan University, evaluated Early Career Program proposal, Jan. 2014

– several NSF panels, including February 2014

– Florida International University, external review consultant for proposed Ph.D. program in Mathematical Sciences, March 2014

– Conference on Complex Analysis and Geometry in Several Complex Variables, TAMUQ, Doha, Qatar, Jan. 4-8, 2015, co-organizer with Shif Berhanu and Nordine Mir

– NSF panel, January 2015

– MSRI Academic Sponsors' Day, member panel on 'Undergraduate Programs and the Changing Demands on the Mathematical Sciences', March 6, 2015

– BIRS workshop on Harmonic Analysis, $\overline{\partial}$, and CR Geometry, co-organizer with T.Barron, S.Fu, M.Pramanik, A.Raich, and A.Tumanov, CMO, Oaxaca, Mexico, Oct. 18 - Oct. 23, 2015

– Workshop on Several Complex variables and CR geometry, to be held at ESI Vienna, Nov. 3–13, 2015, co-organizer with F. Haslinger and B. Lamel

– MSRI-CAS Subcommittee on Summer Graduate Schools, May 2016 – May 2018
   Social Sciences and – MSRI-CAS Subcommittee on Sponsors' Day, 2018 – 2020

– NSF panel, December 2019

– Outside reviewer Mathematics Program, Department of Mathematics and Statistics, Florida International University, March 8–10, 2020

– Referee for Austrian Science Fund, 2020.

Editorial Work

– Associate Editor, Journal of Mathematical Analysis and Applications, 2001 – present

– Associate Editor, Complex Analysis and Its Synergies, 2013 – present

– Editorial Board (with N.Mok, N.Hungerbühler, J.J.Kohn, and P.Ebenfelt), *Complex Analysis*, Several Complex Variables and Connections with PDEs, Trends in Mathematics, Birkhäuser 2010

– Editorial Board of proceedings (with Shif Berhanu and Nordine Mir), Complex Analysis and Geometry in Several Complex Variables, TAMUQ, Doha, Qatar, Jan. 4-8, 2015

University

– Council of Principal Investigators, Fall 1999-Summer 2001

– College of Science Research Committee, Spring 1999-Spring 2002

– College of Science Promotion and Tenure Advisory Committee, Fall 2000- Fall 2003

– College of Science Undergraduate Curriculum Committee, Fall 2004-Fall 2007

– Faculty Senate, Fall 2004-Fall 2007

– College of Science Faculty Advisory Committee, Fall 2007 - Fall 2011, Chair, Fall 2008 - 2010

– Council of Principal Investigators, Fall 2009–Summer 2015

– College of Science Executive Committee, Fall 2011–present

– Dean of Faculties Search Advisory Committee, Fall 2012

– Search Advisory Committee for Faculty Ombuds Officer, Summer 2013

– Council for the Built Environment (as representative of the CPI), 2013–15

– Department Head Steering Committee, 2014–18

– College of Science Dean Search Committee, 2014–15

– College of Arts & Sciences, Diversity, Equity and Inclusion Committee, member, Fall 2022–present, Chair Subcommittee on Retention, Fall 2022–present

Department

– Undergraduate Advisor, 1991-92

– Member, Space Committee, 1992-93

– Member, Frontiers Committee, 1992-93

– Member, Undergraduate Program Committee, 1992-93

– Member, Awards Committee, 1993-95

– Member, P&T Subcommittee, 1993-95

– Chair, P&T Subcommittee, 1994-95

– Organizer, Geometry-Analysis-Topology Seminar (with H.-D. Cao and P. Lima-Filho), 1994-2000

– Executive Committee, Jan. 96-Nov. 97

– Member, Subcommittee P, Spring 98-Spring 2000

– Chair, Subcommittee P, Spring 99-Spring 2000

– Member, Undergraduate Program Committee, Fall 2000-Fall 2002

–Executive Committee, Fall 2001-Fall 2003

– Organizer, Several Complex Variables Seminar, Spring 1998 - Spring 2004

– Graduate Program Committee, Fall 2002-Fall 2004

– Subcommittee P, Spring 2004-Spring 2006

– Undergraduate Scholarship Committee, Fall 2004 - Fall 2006

– Executive Committee, Fall 2006 - Fall 2008

– Awards Committee, Fall 2008 - Fall 2011, Chair, Fall 2010 - Fall 2011

– Post-Doc Search Committee, Fall 2009 - 2010

– Executive Committee, Sept. 2010 - Aug. 2011

– Department Head, Sept. 2011–August 2019

– Subcommittee P(&IT), chair 2020–2021, member 2021–2022

– APT Mentoring Program, mentor for three APT faculty, 2020–present