**Curriculum Vitae**

**Mei-Chi Shaw**

Department of Mathematics
University of Notre Dame
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**Education**

National Taiwan University: 1977, B.S.
Princeton University: 1978, M.S.
Princeton University: 1981, Ph.D.
(Thesis Advisor - Joseph J. Kohn)

**Positions Held**

2024- Professor Emerita, University of Notre Dame
1992-2024 Professor, University of Notre Dame
1987-1992 Associate Professor, University of Notre Dame
1986-1987 Assistant Professor, University of Houston
1983-1986 Assistant Professor, Texas A & M University
1981-1983 Visiting Assistant Professor, Purdue University

**Visiting Positions**

2015 Visiting Professor, Institut Fourier, Université de Grenoble (two weeks)
2011 Visiting Professor, Institut Fourier, Université de Grenoble (one month)
2008 Visiting Professor, Mittag-Leffler Institute, Sweden (one month)
2002 Visiting Professor, Institut Fourier, Université de Grenoble, France (one month)
2000 Visiting Professor, University of Chicago (one semester)
2000 Visiting Professor, Institut Fourier, Université de Grenoble, France (one month)
1998 Visiting Professor, Universite Du Littoral, France (one month)
1997 Visiting Professor, University of Bonn, Germany
1996 Visiting Professor, Mathematical Science Research Institute, Berkeley (one month)
1995 Visiting Professor, Max Planck Institut, Bonn, Germany (one month)
1994 Visiting Professor, Institut Fourier, Université de Grenoble, France (one month)
1993 Visiting Professor, University of Cambridge, England (one semester)
1989 Visiting Associate Professor, University of Wisconsin, Madison (one year)

**Honors:**

**NSF Visiting Professorship for Women 1989-1990**

**Fellows of the American Mathematical Society, Inaugural class 2012**

**Bergman Prize 2019**

**Midwest Several Complex Variables Conference 2022 in honor of Mei-Chi Shaw** Conference Website https://sites.nd.edu/midwestscv2022/

**AWM Featured Mathematician in AWM Playing Card EvenQuads Decks 2023**

## Publications

1. M.-C. Shaw, *Hodge theory on domains with conic singularities*, Comm. Part. Diff. Equ. **8** (1983), 65-88.
2. M.-C. Shaw, *Hypoellipticity of a system of complex vector fields*, Duke Math. J. **50** (1983), 713-728.
3. A. Boggess and M.-C. Shaw, *A Kernel approach to the local solvability of the tangential Cauchy-Riemann equations*, Trans. Amer. Math. Society **289** (1985), 643-659.
4. M.-C. Shaw, *Global solvability and regularity for $\bar{\partial}$ on an annulus between two weakly pseudo-convex domains*, Trans. Amer. Math. Society **291** (1985), 255-267.
5. M.-C. Shaw, *$L^2$ estimates and existence theorems for the tangential Cauchy-Riemann complex.*, Invent. Math. **82** (1985), 133-150.
6. H. Boas and M.-C. Shaw, *Sobolev Estimates for the Lewy Operator on Weakly pseudo-convex boundaries*, Math. Annalen **274** (1986), 221-231.
7. M.-C. Shaw, *A simplification of Rosay's theorem on global solvability of tangential Cauchy-Riemann equations*, Illinois J. Math. **30** (1986), 465-467.
8. M.-C. Shaw, *Eigenfunctions of the nonlinear equation $\triangle u = vf(x,u) = 0$ in $R^2$*, Pacific J. Math. **129** (1987), 349-356.
9. M.-C. Shaw, *Hölder and $L^p$ estimates for $\bar{\partial}_b$ on weakly pseudo-convex boundaries in $\mathbb{C}^2$*, Math. Annalen **279** (1988), 635-652.
10. M.-C. Shaw, *Prescribing zeros of functions in the Nevanlinna class on weakly pseudo-convex domains in $\mathbb{C}^2$*, Trans. Amer. Math Society **648** (1989), 407-418.
11. M.-C. Shaw, *The range of the Tangential Cauchy-Riemann operator over a small ball*, J. Differential Equations **86** (1990), 183-195.
12. M.-C. Shaw, *$L^p$ estimates for local solutions of $\bar{\partial}_b$ on strongly pseudo-convex CR manifolds*, Math. Annalen **288** (1990), 36-62.
13. M.-C. Shaw, *Optimal Hölder and $L^p$ estimates for $\bar{\partial}_b$ on the boundaries of real ellipsoids in $\mathbb{C}^n$*, Trans. Amer. Math. Society **324** (1991), 213-234.
14. M.-C. Shaw, *Local solvability and estimates for $\bar{\partial}_b$ on $CR$ manifolds*, Proceedings of A.M.S. Summer Research Institute on Several Complex Variables and Complex Geometry, Santa Cruz, volume 3 (1991), 335-345.
15. M.-C. Shaw, *$L^2$ existence theorem for the $\bar{\partial}_b$ -Neumann problem on strongly pseudo-convex $CR$ manifolds*, J. Geometric Analysis **1** (1991), 139-163.
16. M.-C. Shaw, *Local Existence Theorems with Estimates for $\bar{\partial}_b$ on weakly pseudo-convex boundaries*, Math. Annalen **294** (1992), 677-700.
17. M.-C. Shaw, *Local and Semi-Global Existence Theorem for $\bar{\partial}_b$ on $CR$ manifolds*, Contemporary Mathematics **137** (1992), 399-405.

18. M.-C. Shaw, *Semi-Global Existence Theorems of $\bar{\partial}_b$ for $(0, n-2)$ forms on Pseudo-Convex boundaries in $\mathbb{C}^n$*, Astérisque, Société Mathématique de France,Colloque D'Analyse complexe et géométrie, Marseille (1993), 227-240.
19. M.-C. Shaw, *Integral Representation for $\bar{\partial}_b$ in CR manifolds*, Proceedings of the Geometric Complex Analysis conference, Hayama, Japan (1996), 535-549.
20. M.-C. Shaw, *Homotopy Formulas for $\bar{\partial}_b$ in $CR$ manifolds with mixed Levi signatures*, Math. Zeit. **224** (1997), 113-136.
21. J. Michel and M.-C. Shaw, *Subelliptic estimates for the $\bar{\partial}$- Neumann operator on piecewise smooth strictly pseudsconvex domains*, Duke Math. J. **93** (1998), 115-128.
22. J. Michel and M.-C. Shaw, *$C^\infty$ - regularity of solutions of the tangential $CR$-equations on weakly pseudoconvex manifolds*, Math. Ann. **311** (1998), 147-162.
23. J. Michel and M.-C. Shaw, *A decomposition problem on weakly pseudoconvex domains*, Math. Zeit. **230** (1999), 1-19.
24. J. Michel and M.-C. Shaw, *The $\bar{\partial}$ and $\bar{\partial}_b$ problems on nonsmooth domains, Analysis and Geometry in Several Complex Variables*, Birkhauser, Boston, 1999, pp. 159-192.
25. J. Michel and M.-C. Shaw, *The $\bar{\partial}$ problem on domains with piecewise smooth boundaries with applications*, Trans. Amer. Math. Soc. **311** (1999), 4365-4380.
26. J. Michel and M.-C. Shaw, *The $\bar{\partial}$-Neumann operator on Lipschitz pseudoconvex domains with plurisubharmonic defining functions*, Duke Math. J. **108** (2001), 421-448.
27. M.-C. Shaw, *Boundary value problems on nonsmooth domains in complex analysis*, Proceedings of the second International Congress of Chinese Mathematicians, 2001, 421-431.
28. S.-C. Chen and M.-C. Shaw, *Partial Differential Equations in Several Complex Variables AMS/IP Studies in Advanced Mathematics, Vol. 19*, Amer. Math. Soc., Providence, RI, International Press, Boston, MA, 2001.
29. M.-C. Shaw, *$L^2$ estimates and existence theorems for $\overline{\partial}_b$ on Lipschitz boundaries*, Math. Zeit. **244** (2003), 91-123.
30. J. Cao, M.-C. Shaw and L. Wang, *Estimates for the $\bar{\partial}$-Neumann problem and nonexistence of Levi-flat hypersurfaces in $\mathbb{C}P^n$*, Math. Zeit **248** (2004), 183-221; Erratum, 223-225.
31. M.-C. Shaw and L. Wang, *Hölder and $L^p$ estimates for $\Box_b$ on CR manifolds with higher codimension*, Math. Ann. **331** (2005), 297-343.
32. C. Laurent-Thiébaut and M.-C. Shaw, *Boundary Hölder and $L^p$ Estimates for local solutions of the tangential Cauchy-Riemann equation*, Trans. Amer. Math. Soc. **357** (2005), 151-177.
33. J. Cao and M.-C. Shaw, *The smoothness of Riemannian submersions with nonnegative sectional curvature*, Communication in Comtemporary Mathematics **7** (2005), 1-8.
34. M.-C. Shaw, *Boundary value problems on Lipschitz domains in $\mathbb{R}^n$ or $\mathbb{C}^n$*, Comptem. Math. Geometric Analysis of PDE and Several Complex Variables, 368 (2005), Amer. Math. Soc., Providence, RI, 375-404.
35. J. Cao and M.-C. Shaw, *A new proof of the Takeuchi theorem*, Proceedings of "CR Geometry and PDEs" Trento, Italy, Interdisplinare di Mathematica, 4 (2005), 65-72.
36. J. Cao and M.-C. Shaw, *$\bar{\partial}$-Cauchy problem and nonexistence of Lipschitz Levi-flat hypersurfaces in $\mathbb{C}P^n$ with $n \geq 3$*, Math. Zeit. vol 256 (2007), 175-192.
37. P. Harrington and M.-C. Shaw, *The Strong Oka's Lemma, bounded plurisubharmonic functions and the $\bar{\partial}$-Neumann problem*, Asian J. Math. **11** (2007), 127-140.
38. M.-C. Shaw, *Estimates and existence theorems for $\overline{\partial}$ in complex projective spaces*, Proceedings of 4th International congress of Chinese mathmaticians, Volume 2 (2008), International Press, Somerville, Ma, 545-558.
39. M.-C. Shaw and L. Wang, *Maximal $L^2$ and pointwise Hölder estimates for $\Box_b$ on $CR$ manifolds of class $C^2$*, Comm. Part. Diff. Equations **33** (2008), 1690-1710.
40. D. Mitrea, M. Mitrea and M.-C. Shaw, *Traces of differential forms on Lipschitz domains, the boundary de Rham complex and Hodge decompostions*, Indiana University Mathematical Journal **57** (2008), 2061-2096.

41. I. Mitrea, M. Mitrea and M.-C. Shaw, *On the interplay between several complex analysis, geometric measure theory and harmonic analysis*, Rev Roumaine de Mathematiques Pures et Appl. **54** (2009), 425-539.
42. M.-C. Shaw, *The closed range property for $\overline{\partial}$ on domains with pseudoconcave boundary*, Proceedings for the Fribourg conference, Trends in Mathematics (2010), 307-320.
43. M.-C. Shaw, *Embedding compact strongly pseudoconvex CR manifolds of class $C^{3,\alpha}$*, Journal of Pure and Applied Mathematics Quarterly **6** (2010), 1105-1122.
44. M.-C. Shaw, *The closed range property for $\overline{\partial}$ on domains with pseudoconcave boundary*, Proceedings for the Fribourg conference, Trends in Mathematics (2010), 307-320.
45. D. Chakrabarti and M.-C. Shaw, *The Cauhcy-Riemann equations on product domains*, Math. Annalen **349** (2011), 977-998.
46. M.-C. Shaw, *Duality between harmonic and Bergman spaces*, Contemporary Math. Proceedings of the conference on Several Complex Variables, Marrakech **550** (2011), 161-172.
47. D. Chakrabarti and M.-C. Shaw, *$L^2$ Serre duality on domains in complex manifolds with applications*, Trans. Amer. Math. Society **364** (2012), 3529-3554.
48. C. Laurent-Thibaut and M.-C. Shaw, *On the Hausdorff property of some Dolbeault cohomology groups* **274**, Math. Zeit. (2013), 1165-1176.
49. D. Chakrabarti and M.-C. Shaw, *Sobolev Regularity of the $\bar{\partial}$-equation on the Hartogs triangle*, Math. Annalen **356** (2013), 241-258.
50. X. Li and M.-C. Shaw, *The $\bar{\partial}$-equation on an annulus with mixed boundary conditions*, Bulletin of the Institute of Mathematics, Academia Sinica **8** (2013), 300-411.
51. M.-C. Shaw, *Topology of Dolbeault Cohomology Groups*, Contemporary Math. Proceedings of the Conference on Analysis, Complex Geometry, and Mathematical Physics in honor of Duong H. Phong **644** (2015), 211-225.
52. M.-C. Shaw, *The Hartogs triangle in complex analysis*, Contemporary Math. Proceedings of Midwest Geometric Conference **646** (2015), 105-116.
53. C. Laurent-Thiébaut and M.-C. Shaw, *Non-closed range property for the Cauchy-Riemann operator*, Analysis and Geometry, Springer Proceedings of the conference held in Tunisia in the memory of Salah Baouendi **127** (2015), 207-218.
54. D. Chakrabarti and M.-C. Shaw, *The $L^2$-cohomology of a bounded smooth Stein Domain is not necessarily Hausdorff*, Math. Ann. **363** (2015), 1001-1021.
55. S. Fu and M.-C. Shaw, *The Diederich-Fornæss exponent and non-existence of Stein domains with Levi-flat boundaries*, J. Geometric Analysis **26** (2016), 220-230.
56. S. Fu, C. Laurent-Thiébaut and M.-C. Shaw, *Hearing pseudoconvexity in Lipschitz domains with holes with $\bar{\partial}$,*, Math. Zeit. **287** (2017), 1157-1181.
57. D. Chakrabarti, C. Laurent-Thiébaut and M.-C. Shaw, *On the $L^2$-Dolbeault cohomology of annuli* **67**, T Indiana University Math. J. (2018), 831-857.
58. S. Fu and M.-C. Shaw, *Bounded plurisubharmonic exhaustion functions and Levi-flat hypersurfaces,*, Acta Mathematica Sinica, English Series **34** (2018), 1269-1277.
59. C. Laurent-Thiébaut and M.-C. Shaw, *Solving $\bar{\partial}$ with prescribed support on Hartogs triangles in $\mathbb{C}^2$ and $\mathbb{C}P^2$*, Trans. Amer. Math. Society **271** (2019), 6531-6546.
60. C. Laurent-Thiébaut and M.-C. Shaw, *Holomorphic approximation via Dolbeault cohomology*, Math. Zeit. **296** (2020), 1027-1047.
61. S. Fu and M.-C. Shaw, *Sobolev estimates and duality for $\bar{\partial}$ on domains in $\mathbb{CP}^n$*, Pure and Applied Math. Quarterly vol 18 (2022), 503-529.
62. A. Burchard, J. Flynn, G. Lu and M.-C. Shaw, *Extendability and the $\bar{\partial}$ operator on the Hartogs triangle*, Math. Zeit. vol 301 (2022), 2771-2792.
63. M.-C. Shaw, *Estimates for $\bar{\partial}$ on domains in $\mathbb{C}^n$ and $\mathbb{CP}^n$*, J. Geometric Analysis. vol 33 (2023), 166-180.
64. M.-C. Shaw, *The $\bar{\partial}$-equation on the Hartogs triangles in $\mathbb{C}^2$ and $\mathbb{CP}^2$*, Springer Proc. Math. Stat. vol 447 (2024), 305-319.

**Papers accepted for publication**

65. C. Laurent-Thiébaut and M.-C. Shaw, *Holomorphic approximation and mixed boundary value problems for* $\overline{\partial}$, to appear in Proc. Amer. Math. Society.

**Books**

So-Chin Chen and Mei-Chi Shaw, *Partial Differential Equations in Several Complex Variables AMS/IP Studies in Advanced Mathematics, Vol. 19*, Amer. Math. Soc., Providence, RI, International Press, Boston, MA, 2001.

Mei-Chi Shaw and Charles M. Stanton, *Complex Analysis in One Variable and Riemann Surfaces.*

**Article**

M.-C. Shaw, *A woman mathematician's journey, an article in the book entitled I, Mathematician, Edited by P. Casazza, S. G. Krantz and R. Ruden*, Mathematical Association of America, Washington DC, 2015, pp. 227-249.

**AMS Committee:**

Nominating Committee 2009-2011

Joan and Birman Fellowship for Women Scholars 2021-2024

**AWM Committee:**

Member at Large

**Former Ph.D. students:**

Deyun Wu (Ph. D., 1994), Professor at Shanghai Financial University, China

Sophia Vassiliadou (Ph.D., 1997), Tenured Associate Professor, Georgetown University.

Phillip Harrington (Ph. D. 2004), Tenured Associate Professor, University of Arkansas, Fayetteville.

**Editorial Board:**

1. Coordinating Editor for Analysis for Proceedings of American Mathematical Society (Editor since 2001, Coordinating Editor since 2009)

2. Associate Editor for the Journal of Geometric Analysis

3. Associate Editor for Complex Analysis and its Synergies

4. La Mathematica

**Grants and Awards**

**Grants:** Continuous funded by NSF since 1984.

**Recent Conferences as Organizers:**

Organizer (Chair) for the Midwest Several Complex Variables conference at Notre Dame, March 7-9, 2003 (http://www.nd.edu/ mscv/)

Organizer for the International Conference in PDE, Complex Analysis and Geometry at Notre Dame, June 11-16, 2006 (http://www.nd.edu/ pde2006/)

Organizer for the International Conference in Complex and CR Geometry, Partial Differential Equations and Invariant Theory at Prague, Czech Republic, June 30-July 4, 2008 (http://www.math.harvard.edu/ siu/kohn-prague2008/)

Principal Organizer for the International Conference on Nevanlinna Theory and Complex Geometry, March 13-18, 2012 Notre Dame ( http://www3.nd.edu/ conf/complex-geometry2012/)

Organizer for the International Conference on "Metric Geometry and Applications" March 14-17, 2013 Notre Dame ( http://www3.nd.edu/ conf/mga13/)

Organizer for the Conference on "Complex Geometry and Several Complex Variables" March 9-11, 2018 Notre Dame ( https://www3.nd.edu/ conf/complex geometry2018/)

**Invited Address**

**1981:**

University of Southern California, Los Angeles
"Hodge Theory on Domains with Conic Singularities."

University of California,
"Hodge Theory on Domains with Conic Singularities."

**1983:**

Texas A& M University, College Station
"Global Solvability for the Tangential Cauchy-Rieman Equations."

**1985:**

Texas PDE Conference, Houston
"Local and Global Solvability of Tangential Cauchy-Rieman Equations."

University of Minnesota, Minneapolis
"$L^2$ Estimates and Existence Theorem for the Tangential Cauchy-Riemann Complex."

International Conference on Partial Differential Equations in Several Complex Variables, Albany, New York
"$L^2$ Estimates and Existence Theorem for the Tangential Cauchy-Riemann Operators."

**1987:**

University of Notre Dame, South Bend
"Solvability and Estimates for the Tangential Cauchy-Riemann Operators."

Princeton University, Princeton
"Estimates for the Tangential Cauchy-Riemann operators on weakly pseudoconvex boundaries".

University of Michigan, Ann Arbor
"Solvability and Estimates for the Tangential Cauchy-Riemann Operators."

Rice University, Houston
"Solvability and Estimates for the Tangential Cauchy-Riemann Operators."

Conference on Partial Differential Equations in Complex Analysis,
Oberwolfach, Germany
"Prescribing zeros of functions in the Nevanlinna class on weakly pseudo-convex domains in $\mathbb{C}^2$."

Midwest Several Complex Variables Seminar, Notre Dame, "Estimates for $\bar{\partial}_b$ on weakly

pseudo-convex boundaries and applications".

**1988:**

Fudan University, China, "Recent development of the estimates for $\bar{\partial}_b$ on weakly pseudo-convex boundaries".

Purdue University, West Lafayette "The range of the tangential Cauchy-Riemann equations over a small ball".

Academia Sinica, Taipei, Taiwan, "Estimates for the tangential Cauchy-Riemann equations." and "Range of the tangential Cauchy-Riemann equations over a small ball".

**1989:**

AMS Summer Research Institute in Several Complex Variables and Complex Geometry, Santa Cruz. "Local Solvability with $L^p$ estimates for the tangential Cauchy-Riemann equations"

University of Wisconsin, Madison, "$L^p$ estimates for local solutions of $\bar{\partial}_b$ on strongly pseudo-convex CR manifolds"

**1990:**

University of California, San Deigo "Local solvability with estimates for $\bar{\partial}_b$ on strongly pseudo-convex CR manifolds"

Conference on Partial Differential Equations in Complex Analysis, Oberwolfach, Germany, "$L^2$ existence theorem for the $\bar{\partial}_b$ - Neumann problem on strongly pseudo-convex CR manifolds"

**1991:**

AMS Annual Meeting, San Francisco, Invited Speaker for the symposium on "The Future of Women in Mathematics", "Solvability and Estimates for the Tangential Cauchy-Riemann Operators."

Conference in Complex Analysis, University of Wisconsin, Madison.
"Local Solvability and Estimates for the Tangential Cauchy-Riemann Operators"

Annual Visiting Professorships for Women Awardee Meeting, Washington, D.C. "Solvability and Estimates for the Tangential Cauchy-Riemann Equations"

AMS Regional Meeting in Philadelphia. Invited speaker at special session. "Local Solvability and Estimates for $\bar{\partial}_b$ on Pseudo-Convex CR Manifolds"

State University of New York at Stony Brook, Stony Brook, New York, "Local Solvability and Estimates for $\bar{\partial}_b$ on Pseudo-Convex CR Manifolds"

Midwest P.D.E. Conference at the University of Wisconsin, Madison.
"Solvability and estimates for the tangential Cauchy-Riemann Equations."

**1992:**

Colloque International d'Analyse Complexe et Géométrie, Marseille, France "Local Solvability and Estimates for the Tangential Cauchy-Riemann Operators"

Purdue University, West Lafayette, IN "Local Solvability & Estimates for the Tangential Cauchy-Riemann Operators"

SUNY at Albany, Albany, NY "Local Solvability and Estimates for the Tangential Cauchy-Riemann Operators"

International Conference in Complex Analysis in honor of Gunning and Kohn, Princeton University, Princeton, New Jersey, "Local Solvability and Estimates for the Tangential Cauchy-Riemann Operators"

**1993:**

National Cheng Kung University, Tainan, Taiwan, "Solvability and Estimates for the Tangential Cauchy-Riemann Operators".

National Chung Cheng University, Chia Yiu, Taiwan, "Solvability and Estimates for the Tangential Cauchy-Riemann Operators".

Wichita State University, Wichita, Kansas. "Homotopy Formulas in the Tangential Cauchy-Riemann Complex".

AMS Regional Meeting in Salt Lake City, Utah, Invited speaker at special session "Homotopy Formulas in the Tangential Cauchy-Riemann Complex".

International Joint Mathematics Meeting of the American Mathematical Society and the Deutsche Mathematiker Vereinigung, Heidelbberg, Germany. Invited speaker at special session "Homotopy Formulas for $\bar{\partial}_b$ with mixed Levi signatures".

University of Cambridge, England, "Solvability and Estimates for the tangential Cauchy-Riemann Equations".

Joint Bonn - Wuppertal Seminars in Complex Analysis, Wuppertal, Germany, "Homotopy Formulas in the Tangential Cauchy-Riemann Equations".

**1994:**

Invited one-hour address at the American Mathematical Society regional meeting in Manhattan, Kansas, "Solvability and Estimates for the Tangential Cauchy-Riemann operators".

Institut Fourier, Université de Grenoble I, France, "Estimates and Local Existence Theorems for the $\bar{\partial}_b$ operator"

University of Washington, Seatle, "Estimates and Local Existence Theorems for the Tangential Cauchy-Riemann operator".

Max-Planck Institut für Mathematik, Germany, "Estimates and Local Existence Theorems for the $\bar{\partial}_b$ operator".

**1995:**

Hayama, Japan, International conference on Geometric Complex Analysis, "Boundary Regularity for the Tangential Cauchy-Riemann Complex".

Sao Calos, Brazil Joint American Mathematical Society and Brazil on Partial Differential Equations in Complex Analysis, "Local Solvability and Estimates for the $\bar{\partial}_b$ operator".

Invited talk at Mathematical Sciences Research Institute, Berkeley, "Subelliptic estimates for the $\bar{\partial}$ - Neumann operator on piecewise smooth strictly pseudoconvex domains."

Taipei, Academica Sinica, "Subelliptic estimates for the $\bar{\partial}$-Neumann operator on piecewise smooth strictly pseudocomvex domains."

National Tsing-Hua University, Hsin Chu, Taiwan, "Subelliptic estimates for the $\bar{\partial}$-Neumann operator on piecewise smooth strictly pseudoconvex domains."

**1996:**

AMS Annual meeting in Orlando, Florida, "Subelliptic estimates for the $\partial$-Neumann operator on piecewise smooth strictly pseudoconvex domains."

Invited talks at Mathematical Sciences Research Institute, Berkeley, "Subelliptic estimates for the $\bar{\partial}$-Neumann operator on strongly pseudoconves Lipschitz domains."

"Local regularity for the tangential Cauchy-Riemann equations on weakly pseudo convex manifolds."

Texas A & M University College Station, Texas,
"Subelliptic estimates for the $\bar{\partial}$-Neumann operator on Lipschitz domains."

**1997:**

Northwestern University, Evanston, Illinois,
"Subelliptic estimates for the $\bar{\partial}$-Neumann operator on Lipschitz domains."

Warsaw, Poland,
"The $\bar{\partial}$-problem on domains with piecewise smooth boundaries with applications."

Taipei, Taiwan, Two invited lectures.
"Subelliptic estimates for the $\bar{\partial}$ - Neumann operator on Lipschitz domains."
"The $\bar{\partial}$-problem on domains with piecewise smooth boundaries with applications."

**1998:**

University of Arkansas, Fayetteville,
"The $\bar{\partial}$-problem on nonsmooth domains."

University Du Littoral, France.
"The $\bar{\partial}$-problem on nonsmooth domains."

Lille University, France
"Sobolev Estimates for the $\bar{\partial}$-Neumann problem on pseudoconves domains".

**1999:**

AMS Annual meeting in San Antonio, Texas,
"The $\bar{\partial}$-Neumann problem on Lipschitz domains."

AMS regional meeting in Salt Lake city, Utah,
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

Midwest Several Complex Variables conference, Ann Arbor, Michigan,
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

**2000:**

University of California, Irvine,
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

Workshop on Geometry and Analysis, Hong Kong, China
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

Université de Grenoble, Institut Fourier
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

Université de Grenoble, Institut Fourier
"$\bar{\partial}$ and $\bar{\partial}_b$ on Lipschitz domains." (Four one-hour lectures)

University of Chicago, Chicago, Illinois
"$L^2$ existence theorems for $\bar{\partial}_b$ on Lipschitz boundaries."

**2001:**

Princeton University, Princeton, New Jersey
"Hölder and $L^p$ Estimates for $\Box_b$ on $CR$ manifolds"

University of Michigan, Ann Arbor
"Estimates for $\Box_b$ on $CR$ manifolds"

University of California at San Diego
"Existence Theorems and Estimates for $\Box_b$ on $CR$ manifolds of higher codimension"

International Congress of Chinese Mathematicians, Taipei, Taiwan
"Boundary value problems on nonsmooth domains in complex analysis"

**2002:**

Seoul National University, Seoul, Korea
"Boundary value problems on nonsmooth domains in complex analysis" (4 Lectures)

Institut Fourier, Grenoble, France
"Hölder and $L^p$ Estimates for $\Box_b$ on $CR$ manifolds"

Conference In honor of Gunning-Kohn, Princeton, New Jersey
"Hölder and $L^p$ Estimates for $\Box_b$ on $CR$ manifolds of arbitrary codimension"

**2003:**

Midewest Several Complex Variables conference, Syracuse, Oct. 2003

International Conferenece on Several Complex Variables and Complex Geometry in honor of Y.T. Siu, Hong Kong, November 2003

Colloquium Talk at the University of Wisconsin, Madison, November 2003

Conference on Geometry and Analysis on CR manifolds, Academia Sinica, Taiwan, Dec. 2003

Hayama Symposium on Complex Analysis in Several Variables, Hayama, Japan, Dec. 2003

**2004:**

Six Invited Lectures Series at the International Summer School on $CR$ geometry, HongZhou, China, June, 2004

International Conferenece on $CR$ Geometry and Partial Differential Equations, Levico, Italy, September, 2004

**2005:**

Invited speaker at Southern Geometric Analysis Seminar at San Diego, Feb. 2005

Colloquium talk at the University of Houston, April, 2005

Seminar speaker at Rice University, April, 2005

Six one-hour lectures at the summer school in "Real Partial Differential Equations in Complex CR Geometry" (The Cauchy-Riemann equations on Complex Manifolds) at Trento, Italy, July, 2005

Invited talk at the Workshop on Analytic and Algebraic Methods in Complex and CR Geometry, Banff, Canada, September, 2005

Colloquium speaker at the University of California at Irvine, October, 2005

Invited to give a talk at the Workshop on Bergman spaces and CR Geometry at the Shrödinger Institute, Vienna, Austria, November 2005

**2006:**

Invited speaker at International Conference in Complex Analysis at Madison, Wisconsin, March, 2006

Seminar talk at Stanford University, Palo Alto, CA, May 3, 2006

Invited speaker at the Nordan conference in Several Complex Variables at Sundsvall, Sweden, May 19, 2006.

Invited speaker at International Conference in Complex Analysis on Degenerate Structures in Complex Analysis - From the past to the future in Cologne, Germany on May 23, 2006

Seminar talk at Rutgers University, New Brunswick, New Jersey, October 20, 2006

Invited speaker at International Conference in Finsler Geometry, Cairo, Egypt. Nov. 8, 2006

**2007:**

Invited speaker at the Midwest Several Complex Variables Conference at Ann Arbor, Michigan, March, 2007

Invited speaker a the conference in several complex variables at the University of Illinois at Chicago, April, 2007

Colloquium talk at the Academia Sinica, Taipei, Taiwan, 2007

Mini-course lecturer (four one-hour talks) at the Summer school and International Conference in complex analysis, Luminy, Marseille, France, September, 2007

Invited speaker a the conference of International Congress of Chinese Mathematicians at Hongzhou, China, December , 2007

Colloquium speaker at Wuhan University, Wuhan, China, December , 2007

**2008:**

Colloquium speaker at Academia Sinica, Beijing, China, January , 2008

Mini-course lecturer (four two-hour Lectures) at the Academia Sinica, Taipei, Taiwan, Feb, 2008

Colloquium speaker at Academia Sinica, Taipei, Taiwan, March 2008

Colloquium speaker at National Taiwan University, Taipei, Taiwan, March 2008

Colloquium speaker at National Tsing-Hua University, Hsin-Chu, Taiwan, March 2008

Colloquium speaker at Mittag-Leffler Institute, Sweden, April, 2008

Mini-course lecturer (four two-hour Lectures) at Fudan University, Shanghai, May, 2008

Colloquium speaker at Fudan University, Shanghai, May, 2008

Invited speaker a the international conference of Complex Analysis in honor of Linda Rothschild, Fribourg, Switzerland, 2008

Mini-course at the international conference of Complex Analysis in honor of Linda Rothschild, Fribourg, Switzerland, 2008

Joint AMS-Shanghai Meeting at Shanghai, China, invited talk at special session, December 2008

**2009:**

Colloquium speaker at Fudan University, Shanghai, May, 2009

Invited speaker at International conference at National Taiwan University, July

Panelist for Women Mathematician Forum, National Taiwan University, July

**2010:**

Colloquium speaker at the University of Arkansas, Fayettville, March.

Invited speaker at the International conference at Marrakech, Morocco, May.

Mini-course at the International Summer School on Geometric Analysis, at National Taiwan University, Taipei, June-July

Invited speaker at National Tsing-Hua University in Hsin-Chu, Taiwan, July

Invited speaker at the international conference on Geometric and Complex Analysis, Nanjing, China, July.

Invited colloquium speaker at the University of Toledo, Ohio, October.

**2011:**

Invited speaker at the Midwest Several Complex Variables conference, St. Louis, May.

Colloquium speaker at the Institute Fourier, University of Grenoble, June.

Invited speaker at the international conference on Complex Analysis and Geometry, Levico, Italy. June.

Invited seminar speaker at Johns Hopkins University, October.

Invited colloquium speaker at Rutgers University, New Jersey, October.

**2012:**

AMS regional meeting, Kansas, March

Invited Colloquium speaker, Central Michigan, April

Invited Colloquium speaker, University of California at Irvine, May

international workshop on "Several Complex Variables and Complex Geometry" , Taipei Academia Sinica

International conference on complex geometry, singularities and related fields. August, Beijing

Invited speaker, "Perspectives in Harmonic Analysis, Geometric Measure Theory, and PDE and SCV", Philadelphia, September.

**2013:**

Invited speaker, International Conference on Analysis, Complex Geometry and Mathematical Physics, Columbia University, May.

Invited speaker, International Conference on Nonlinear Analysis and Complex Geometry,

Wuyishan, China, June.

Invited colloquium speaker at Xiamen University, Fujian, China, June.

Invited speaker at Midwest Geometry Conference, Stillwater, Oklahoma. October

Invited colloquium speaker at Oklahoma University, Norman, Oklahoma. October

**2014:**

Invited speaker at China-Korea Conference on Several Complex Variables in Seoul, Korea, January

Invited speaker at Several Complex Variables Symposium in Sanya, China, May

Invited speaker at CR Geometry and PDE in Levico, Italy, June.

Invited colloquium speaker at University of Connecticut, November.

Invited speaker at Workshop in Analysis and Geometry, Academia Sinica, Taipei, December.

**2015:**

Invited speaker at Workshop in Analysis and Geometry in Several Complex Variables, Doha Qatar, January

Invited seminar speaker at Princeton University, Princeton, New Jersey, March.

Invited speaker at Conference on Complex Analysis and Geometry in honor of Sid Webster in Madison, Wisconsin, March.

Invited speaker at International Conference on Complex Geometry and Several Complex Variables, Shanghai, China. May.

Invited seminar speaker at Beijing Normal University, China, May.

Invited speaker at Conference on Complex Analysis in Grenoble, France. June.

Mini-course at Workshop on Geometric Analysis of PDE and Several Complex Variables, Serra Negra, Brazil. August.

Invited colloquium speaker at Syracuse University, Syracuse, New York, November.

**2016:**

Invited seminar speaker at National University of Singapore, Singapore, January.

Invited speaker at Midwest Several Complex Variables Conference, Toledo, May.

Invited speaker at CR Geometry and PDE, Levico, Italy. June.

Invited speaker at Conference in Complex Geometry and the Cauchy-Riemann equation, Oslo, Norway. August

Invited seminar speaker at Princeton University, Princeton, New Jersey. October.

**2017:**

Invited speaker at AWM symposium, Los Angeles, April.

Invited speaker at International Conference in Several Complex Variables Conference, Xiamen, China. June.

Invited speaker conference Complex Dynamics: Iterations, Foliations and Evolutions" Oslo, June.

Invited seminar speaker at Beijing International Center for Mathematical Research, Beijing, June.

**2018:**

Invited speaker at National Taiwan University. Lakeside Lecture Series. Taipei, January.

Invited speaker at International Conference on Geometric Invariance and Partial Differential Equations, Academia Sinica, Taipei, January.

Invited speaker at Southern California Conference on Geometric Analysis, La Jolla, California, March.

Invited speaker at Midwest Several Complex Variables Conference at Syracuse University, New York, May.

Invited speaker at special session of AMS regional meeting at Ann Arbor, Michigan, October.

**2019:**

Invited colloquium speaker at Beijing Normal University, Beijing, May.

Invited speaker and group leader in Complex Analysis at the International workshop on Women in Analysis in Banff, June.

**2020:**

Invited keynote speaker in special AMS-AWM session on Women in Several Complex Variables, Denver, January.

**2021:**

Invited speaker (zoom talk), East-West Several Complex Variable Seminar, September.

**2022:**

Invited keynote speaker (zoom talk), Taiwan Mathematical Society, January.

Invited speaker (zoom talk), Purdue University, February.

Invited speaker (zoom talk), Hayama International conference, Japan, July.

**2023:**

Invited speaker, Budepest Conference in honor of Laszlo Lempert, Hungary. June.

**Professional and Administrative Activities:**

Appointed member of the AMS Central Section Program Committee 1994-1996

Member at large of the Association for Women in Mathematics 1992-1993

Member of the Committee of Vistors for the Division of Math. Sciences at NSF 1995

Director of Graduate Studies at Notre Dame Math. Department 1996-1997

Member of the panel NSF, 1997

Member of the panel NSF, 1999

Member of the panel NSF, 2002

Member of the panel at NSF, 2007

Member of the panel NSF, 2009

Member of the panel NSF, 2010

Member of the American Math. Society Nominating Committee 2009-2011

Hiring Committee at Notre Dame, Luce Woman Assistant Professorship, 2017

Member of the panel NSF, 2017

Member of the Notre Dame faculty senate, 2017