GERALD B. FOLLAND
Curriculum Vitae (2021)

Born June 4, 1947, at Salt Lake City, Utah.

Education

B.A., Harvard, 1968
M.A., Princeton, 1970
Ph.D., Princeton, 1971

Employment

1971–73: Courant Institute Instructor, New York University
1973–75: assistant professor of mathematics, University of Washington
1975–80: associate professor of mathematics, University of Washington
1980–2012: professor of mathematics, University of Washington
2012–: professor emeritus of mathematics, University of Washington

Visiting Positions (2 months or more)

June-Sept. 1969: member of technical staff, Bell Laboratories
Sept.-Dec. 1974: assistant professor, Princeton University
Jan.-April 1979: member, Institute for Advanced Study
Sept.-Nov. 1981: professor, Tata Institute of Fundamental Research, Bangalore Centre
Jan.-March 1987: professor, Indian Statistical Institute, Bangalore Centre
April-May 1987: visiting scholar, University of New South Wales
Aug.-Dec. 1993: Ulam Visiting Professor, University of Colorado, Boulder

Publications (other than book reviews)

1. Weyl manifolds, *J. Diff. Geometry* **4** (1970), 145–153.

2. The tangential Cauchy-Riemann complex on spheres, *Trans. Amer. Math. Soc.* **171** (1972), 83–133.

3. (with J. J. Kohn) *The Neumann Problem for the Cauchy-Riemann Complex,* Annals of Math. Studies no. 75, Princeton University Press, 1972.

4. Tangential Cauchy-Riemann complexes on spheres, *Proc. Symp. Pure Math.* **23** (1973), 105–112.

5. A fundamental solution for a subelliptic operator, *Bull. Amer. Math. Soc.* **79** (1973), 373–376.

6. Subelliptic operators on the Heisenberg group, *Proc. Symp. Pure Math.* **26** (1973), 259–261.

7. (with E. M. Stein) Parametrices and estimates for the $\overline{\partial}_b$ complex on strongly pseudo-convex boundaries, *Bull. Amer. Math. Soc.* **80** (1974), 253–258.

8. (with E. M. Stein) Estimates for the $\overline{\partial}_b$ complex and analysis on the Heisenberg group, *Comm. Pure Appl. Math.* **27** (1974), 429–522.

9. Spherical harmonic expansion of the Poisson-Szegö kernel for the ball, *Proc. Amer. Math. Soc.* **47** (1975), 401–408.

10. Subelliptic estimates and functions spaces on nilpotent Lie groups, *Arkiv för Mat.* **13** (1975), 161–207.

11. *Introduction to Partial Differential Equations,* Math. Notes no. 17, Princeton University Press, 1976.

12. On the Rothschild-Stein lifting theorem, *Comm. Partial Diff. Eq.* **2** (1977), 165–191.

13. Applications of analysis on nilpotent groups to partial differential equations, *Bull. Amer. Math. Soc.* **83** (1977), 912–930.

14. On dilations and derivatives, *Several Complex Variables* (proceedings of international conferences, Cortona, 1976–77), Scuola Normale Superiore, Pisa, 1978, 80–86.

15. (with H. T. Hung) Non-isotropic Lipschitz spaces, *Proc. Symp. Pure Math.* **35** (II) (1979), 391–394.

16. Lipschitz classes and Poisson integrals on stratified groups, *Studia Math.* **66** (1979), 37–55.

17. Spectral analysis of a singular nonself-adjoint boundary value problem, *J. Diff. Eq.* **37** (1980), 206–224.

18. Spectral analysis of a nonself-adjoint differential operator, *J. Diff. Eq.* **39** (1981), 151–185.

19. (with E. M. Stein) *Hardy Spaces on Homogeneous Groups,* Math. Notes no. 28, Princeton University Press, 1982.

20. *Lectures on Partial Differential Equations,* Tata Institute of Fundamental Research, 1983.

21. *Real Analysis: Modern Techniques and their Applications,* John Wiley, 1984.

22. On characterizations of analyticity, *Amer. Math. Monthly* **93** (1986), 640–641.

23. *Harmonic Analysis in Phase Space,* Annals of Math. Studies no. 122, Princeton University Press, 1989.

24. Harmonic analysis of the deRham complex on the sphere, *J. Reine Angew. Math.* **398** (1989), 130–143.

25. Remainder estimates in Taylor's theorem, *Amer. Math. Monthly* **97** (1990), 233–235.

26. *Fourier Analysis and its Applications,* Wadsworth & Brooks/Cole, 1992.

27. Meta-Heisenberg groups, pp. 121–147 in *Fourier Analysis: Analytic and Geometric Aspects* (W. O. Bray, P. S. Milojević, and C. V. Stanojević, eds.), Marcel Dekker, New York, 1994.

28. *A Course in Abstract Harmonic Analysis,* CRC Press, 1995.

29. *Introduction to Partial Differential Equations* (2nd ed.), Princeton University Press, 1995.

30. Fundamental solutions for the wave operator, *Exposit. Math.* **15** (1997), 25–52.

31. From calculus to wavelets: a new mathematical technique, *Resonance* **2**, no. 4 (1997), 25–37.

32. (with A. Sitaram) The uncertainty principle: a mathematical survey, *J. Fourier Anal. Appl.* **3** (1997), 207–238.

33. Hermite distributions associated to the group $O(p, q)$, *Proc. Amer. Math. Soc.* **126** (1998), 1751–1763.

34. *Real Analysis: Modern Techniques and their Applications* (2nd ed.), John Wiley, 1999.

35. How to integrate a polynomial over a sphere, *Amer. Math. Monthly* **108** (2001), 446–448.

36. *Advanced Calculus,* Prentice Hall, 2002.

37. Compact Heisenberg manifolds as CR manifolds, *J. Geom. Analysis* **14** (2004), 521–532.

38. The abstruse meets the applicable: some aspects of time-frequency analysis, *Proc. Indian Acad. Sci. (Math. Sci.)* **116** (2006), 121–136.

39. (with M. Bownik) Duals of Hardy spaces on homogeneous groups, *Math. Nachr.* **280** (2007), 1223-1229.

40. *Quantum Field Theory: A Tourist Guide for Mathematicians,* American Mathematical Society, Providence, RI, 2008.

41. *A Guide to Advanced Real Analysis,* Mathematical Association of America, Washington, DC, 2009.

42. Speaking with the natives: reflections on mathematical communication, *Notices Amer. Math. Soc.* **57** (2010), 1121–1124.

43. A tale of topology, *Amer. Math. Monthly* **117** (2010), 663–672.

44. *A Course in Abstract Harmonic Analysis* (2nd ed.), CRC Press, 2016.

45. Some topics in the history of harmonic analysis in the twentieth century, *Indian J. Pure Appl. Math.* **48** (2017), 1–58.

46. Time-frequency analysis and representations of the discrete Heisenberg group, pp. 3–16 in *Excursions in Harmonic Analysis, Volume 5* (R. Balan, J. J. Benedetto, W. Czaja, M. Dellatore, and K. A. Okoudjou, eds.), Birkhäuser, 2017.

47. The Heisenberg group and its relatives in the work of Elias M. Stein, *J. Geom. Analysis* **31** (2021), 6681–6697. DOI 10.1007/s12220-019-00309-w

Book Reviews (A few brief reviews are omitted. Reviews are listed by title and author of the book, followed by publication data for the review.)

1. *Differential Forms Orthogonal to Holomorphic Functions or Forms, and Their Properties*, by L. A. Aizenberg and S. A. Dautov. *Bull. Amer. Math. Soc.* **12** (1985), 156–158.

2. *Lectures on Bochner-Riesz Means*, by Katherine Michelle Davis and Yang-Chun Chang. *Bull. Amer. Math. Soc.* **20** (1989), 139–142.

3. *Handbook of Writing for the Mathematical Sciences*, by Nicholas J. Higham; *A Primer of Mathematical Writing*, by Steven G. Krantz. *Amer. Math. Monthly* **105** (1998), 779–781.

4. *The Universal Computer: the Road from Leibniz to Turing*, by Martin Davis; *The Universal History of Computing: From the Abacus to the Quantum Computer*, by Georges Ifrah. *Amer. Math. Monthly* **109** (2002), 581–583.

5. *Imagining Numbers (Particularly the Square Root of Minus Fifteen)*, by Barry Mazur; *Abel's Proof: An Essay on the Sources and Meaning of Mathematical Unsolvability*, by Peter Pesic; *The Riemann Hypothesis: The Greatest Unsolved Problem in Mathematics*, by Karl Sabbagh. *Amer. Math. Monthly* **111** (2004), 75–81.

6. *Functional Analysis*, by Peter D. Lax; *Functional Analysis: An Introduction*, by Yuli Eidelman, Vitaly Milman, and Antonis Tsolomitis. *Amer. Math. Monthly* **112** (2005), 937–940.

7. *Analysis I: Convergence, Elementary Functions*, and *Analysis II: Differential and Integral Calculus, Fourier Series, Holomorphic Functions*, by Roger Godement. *Amer. Math. Monthly* **114** (2007), 172–176.

8. *The Best Writing on Mathematics 2010*, edited by Mircea Pitici. *Notices Amer. Math. Soc.* **58** (2011), 1451–1452.

9. *Why Beliefs Matter: Reflections on the Nature of Science*, by E. Brian Davies. *Notices Amer. Math. Soc.* **59** (2012), 553–555.

10. *The Universe in Zero Words: The Story of Mathematics as Told through Equations*, by Dana Mackenzie; *In Pursuit of the Unknown: 17 Equations That Changed the World*, by Ian Stewart. *Notices Amer. Math. Soc.* **59** (2012), 1562–1564.

11. *Hidden Harmony—Geometric Fantasies: The Rise of Complex Function Theory*, by Umberto Bottazzini and Jeremy Gray. *Amer. Math. Monthly* **122** (2015), 183–188.

12. *A History in Sum: 150 Years of Mathematics at Harvard (1825–1975)*, by Steve Nadis and Shing-Tung Yau. *Amer. Math. Monthly* **122** (2015), 508–510.

13. *Birds and Frogs: Selected Papers 1990–2014*, by Freeman Dyson. *Notices Amer. Math. Soc.* **63** (2016), 442–443.

14. *The Real and the Complex: A History of Analysis in the 19th Century*, by Jeremy Gray. *Amer. Math. Monthly* **123** (2016), 949–952.

15. *50 Visions of Mathematics*, edited by Sam Parc. *Math. Intelligencer* **38** (4) (2016), 87.