

John B Conway

Home phone: 865-546-9049
conway@math.utk.edu

Office phone: 865-974-2463
<http://www.math.utk.edu/~conway/>

Degrees

BA, Loyola University, New Orleans, 1961
PhD, Louisiana State University, 1965

Positions held

Assistant Professor, Indiana University, 1965-70
Associate Professor, Indiana University, 1970-77
Full Professor, Indiana University, 1977-1990
Professor and Department Head, University of Tennessee, 1990-2003
Science Alliance (University of Tennessee) Mathematics Division Director
1992-2000
Professor, University of Tennessee, 2003-present.
Program Officer Rotator, National Science Foundation – Division of Mathematical Sciences, 2003-2006.
Professor and Chair, Mathematics Department, The George Washington University, 2006 - present.

Publications

1. “The strict topology and compactness in the space of measures,” *Bull Amer Math Soc* **72** (1966) 75–78.
2. “Subspaces of $C(S)_\beta$, the space (ℓ^∞, β) , and (H^∞, β) ,” *Bull Amer Math Soc* **72** (1966) 79–81.
3. “Projections and retractions,” *Proc Amer Math Soc* **17** (1966) 843–847.
4. “The strict topology and compactness in the space of measures, II,” *Trans Amer Math Soc* **126** (1967) 474–486.
5. “On the inadequacy of sequences,” *Amer Math Monthly* **76** (1969) 68–69.
6. “A theorem on sequential convergence of measures and some applications,” *Pacific J Math* **28** (1969) 53–60.
7. “On extending interpolating sets in the Stone-Cech compactification,” *Duke Math J* **36** (1969) 753–759.
8. “The numerical range and a certain convex set in an infinite factor,” *J Funct Anal* **5** (1970) 428–435.
9. “On algebras of operators with totally ordered lattice of invariant subspaces,” *Proc Amer Math Soc* **28** (1971) 163–168.
10. “The compact operators are not complemented in $\mathcal{B}(\mathcal{H})$,” *Proc Amer Math Soc* **32** (1972) 549–550.
11. “The weak sequential closure of certain sets of extreme points in a von Neumann algebra,” (with J. Szücs) *Indiana Univ Math J* **22** (1973) 763–768.
12. “A complete Boolean algebra of subspaces which is not reflexive,” *Bull Amer Math Soc* **79** (1973) 720–722.

13. “On the Calkin algebra and the covering homotopy property,” *Trans Amer Math Soc* **211** (1975) 135–142.
14. “The splitting of $\mathcal{A}(T_1 \oplus T_2)$ and related questions,” (with P Y Wu) *Indiana Univ Math J* **26** (1977) 41–56.
15. “The direct sum of normal operators,” *Indiana Univ Math J* **26** (1977) 277–289.
16. “A functional calculus for subnormal operators,” (with R F Olin) *Bull Amer Math Soc* **82** (1976) 259–261.
17. “A functional calculus for subnormal operators, II,” (with R F Olin) *Memoirs Amer Math Soc* **184** (1977).
18. “On the Calkin algebra and the covering homotopy property, II,” *Canadian Math J* **29** (1977) 210–215.
19. “The operator equation $TS = 1$ and representations of ℓ^1 of the bicyclic semigroup,” (with B B Morrel and J G Stampfli) *Proc Royal Edinburgh Soc* **79A** (1977) 131–136.
20. “Singly generated antisymmetric algebras,” (with W Szymanski) *Pacific J Math* **89** (1980) 269–277.
21. “Operators that are points of spectral continuity,” (with B B Morrel) *Integral Equations Operator Theory* **2** (1979) 174–198.
22. “Quasimilarity for subnormal operators,” *Illinois J Math* **24** (1980) 689–702.
23. “Operators that are points of spectral continuity, II,” (with B B Morrel) *Integral Equations Operator Theory* **4** (1981) 459–503.
24. “Finite-dimensional points of continuity for Lat,” (with P R Halmos) *Lin Alg Appl* **31** (1980) 93–102.
25. “Finite-dimensional points of continuity for Gen and Com,” *Lin Alg Appl* **35** (1981) 121–127.
26. “The dual of a subnormal operator,” *J Operator Theory* **5** (1981) 195–211.
27. “Quasimilarity for subnormal operators, II,” *Canad Math Bull* **25** (1982) 37–40.
28. “The structure of quasinormal operators and the double commutant property,” (with P Y Wu) *Trans Amer Math Soc* **270** (1982) 641–657.
29. “Toeplitz operators on Bergman spaces,” (with S Axler and G McDonald) *Canadian Math J* **34** (1982) 466–483.
30. “Operators that are points of spectral continuity, III,” (with B B Morrel) *Integral Equations Operator Theory* **6** (1983) 319–344.
31. “Strong limits of normal operators,” (with D W Hadwin) *Glasgow Math J* **24** (1983) 93–96.
32. “Behavior of the spectrum under small perturbations,” (with B B Morrel) *Proc Royal Irish Acad* **81A** (1981) 55–63.
33. “On a conjecture of Carey and Pincus,” (with K Clancey and M Raphael) *Integral Equations Operator Theory* **6** (1983) 158–159.

34. “Operators with C^* -algebra generated by a shift,” (with P McGuire) *Trans Amer Math Soc* **284** (1984) 153–161.
35. “Monogenic inverse semigroups,” (with J Duncan and A L T Paterson) *Proc Royal Soc Edinburgh* **98A** (1984) 13–24.
36. “An irreducible subnormal operator with infinite multiplicities,” (with C R Putnam) *J Operator Theory* **13** (1985) 291–297.
37. “Is a self-adjoint operator determined by its lattice of invariant subspaces?” (with T A Gillespie) *J Funct Anal* **64** (1985) 178–189.
38. “A survey of results on subnormal operators,” *Operators and Function Theory* (edited by S C Power), D Reidel Publ Co, Dordrecht (1985).
39. “Isometrically removable sets for functions in the Hardy space are polar,” (with J J Dudziak and E Straube) *Michigan Math J* **34** (1987) 267–273.
40. “Arranging the disposition of the spectrum,” *Proc Royal Irish Acad* **85A** (1985) 139–142.
41. “Spectral properties of certain operators on Hardy spaces of planar regions,” *Integral Equations Operator Theory* **10** (1987) 659–706.
42. “Roots and logarithms of bounded operators on a Hilbert space,” (with B B Morrel) *J Funct Anal* **70** (1987) 171–193.
43. “Linear combinations of hyponormal operators,” (with W Szymanski) *Rocky Mount Math J* **18** (1988) 695–705.
44. “Is an isometry determined by its invariant subspace lattice?” (with T A Gillespie) *J Operator Theory* **22** (1989) 31–49.
45. “The minimal normal extension of a function of a subnormal operator,” *Analysis at Urbana II*, Proc Special Year in Modern Analysis at University of Illinois, 1986–87, pp. 128–140, Cambridge Univ Press, Cambridge (1989).
46. “A note on the algebra generated by a subnormal operator” (with H Bercovici) *Topics in Operator Theory: Constantin Apostol Memorial Issue*, I Gohkberg, Editor, Birkhauser, Basel (1988).
47. “Completing the Riesz-Dunford functional calculus,” (with D A Herrero and B B Morrel) *Memoirs Amer Math Soc* **82** (1989) Number 417.
48. “Towards a functional calculus for subnormal tuples; the minimal normal extension and approximation in several complex variables,” *Proc Symposium Pure Math* **51**, Part I, Amer Math Soc, Providence (1990).
49. “Towards a functional calculus for subnormal tuples: the minimal normal extension,” *Trans Amer Math Soc* **326** (1991) 543–567.
50. “Von Neumann operators are reflexive,” (with J J Dudziak) *J reine angew Math* **408** (1990) 34–56.
51. “Paul Halmos and the Progress of Operator Theory,” *Paul Halmos, Celebrating 50 Years of Mathematics*, Springer-Verlag, New York (1991).
52. Book review of *Lectures on hyponormal operators* by M Martin and M Putinar, *Bull Amer Math Soc* **24** (1991) 441–447.
53. “Analytic bounded point evaluations for spaces of rational functions,” (with Norma Elias), *J Functional Analysis* **117** (1993) 1–24.

54. “Pointwise Bounded Limits of Rational Functions on the String of Beads.” (with J J Dudziak and M Melnikov), *Proc Royal Irish Academy* **95A** (1995) 29–38.
55. “On the fundamental problem for spectral sets,” *Linear and Complex Analysis Problem Book 3*, vol 1, Springer-Verlag Lecture Notes **1573** (1994) 373–377.
56. “Stable Invariant Subspaces for Operators on Hilbert Space,” (with D W Hadwin), *Annales Polonici Mathematici* **66** (1997) 49–61.
57. “The essential selfcommutator of a subnormal operator,” (with N Feldman), *Proc Amer Math Soc* **125** (1997) 243–244.
58. “Some Open Problems in the Theory of Subnormal Operators,” (with L Yang), *Holomorphic spaces* (Berkeley, CA, 1995), 201–209, Math. Sci. Res. Inst. Publ., **33**, Cambridge Univ. Press, Cambridge, 1998.
59. “A wealth of potential but an uncertain future: today’s mathematics departments,” *Notices Amer Math Soc*, **44** (1997) 439–440.
60. “Advice from a department head,” Chapter 18 in *Towards Excellence*, Amer Math Soc, Providence (1999).
61. “Singly Generated Algebras Containing a Compact Operator,” (with G Prăjitură) *Operator Theory: Advances and Applications* **127** (2001)163–170.
62. “Reflections of a department head on outreach mathematics,” *Notices Amer Math Soc*, **48** (2001) 1169–1172.
63. “The harmonic functional calculus and hyperreflexivity,” (with M Ptak), *Pacific J Math* **204** (2002)19–29.
64. “On unbounded Bergman operators,” (with K H Jin and S Kouchekian), *J Math Anal Appl* **279** (2003) 418–429.
65. “On λ -commuting operators,” (with G Prăjitură), *Studia Math* **166** (2005) 1–9.
66. “Engagement in Tennessee mathematics,” (with J F Dwyer and Reid Davis) *Journal of Higher Education Outreach and Engagement* **8**.
67. “Absolute equivalence and Dirac operators of commuting tuples of operators,” (with J Gleason) *Integral Equations and Operator Theory* **51** (2005) 57–71.
68. ”Rotating at the National Science Foundation,” *Notices Amer Math Soc* **52** (2005) 646–649.

Books

1. *Functions of One Complex Variable*, Springer-Verlag, New York (1973). Second edition (1978); ninth printing (1998).
2. *Subnormal Operators*, Pitman Publ Co, London (1981).
3. *A Course In Functional Analysis*, Springer-Verlag, New York (1985). Second edition (1990); fourth printing (1997).
4. *Surveys of Some Recent Results in Operator Theory* (2 volumes), Longman (London), (co-edited with B B Morrel)(1989).
5. *Proceedings of the GPOTS-Wabash Conference of May, 1988*, Longman, London (1990) (co-edited with B B Morrel).

6. *The Theory of Subnormal Operators*, Math Surveys vol 36, Amer Math Soc, Providence (1991).
7. *Functions of One Complex Variable, II*, Springer-Verlag, New York (1995). Second Printing (1996).
8. *On Being a Department Head, a Personal View*, Amer Math Soc, Providence (1996).
9. *A Course in Operator Theory*, Amer Math Soc, Providence, (1999).

Ph. D. Students and current affiliation

1. Robert F Olin (1975) Dean, College of Arts and Sciences, University of Alabama.
2. Pei Yuan Wu (1975) National Chiao Tung University, Taiwan.
3. Quentin F Stout (1977) University of Michigan, Computer Science Department.
4. Stephen J Wright (1977) Oakland University.
5. Gerard E Keough (1979) Boston College.
6. Jim Agler (1980) University of California at San Diego
7. James J Dudziak (1981) Lyman Briggs College, Michigan State University
8. Karim Seddighi (1981) deceased
9. Marc Raphael (1982) Private business
10. Gregory Adams (1984) Bucknell University
11. Paul McGuire (1985) Bucknell University
12. John Akeroyd (1986) University of Arkansas
13. Ameer Athavale (1987) University of Poona, India
14. Norma Elias (1987) Cleveland State University
15. John Spraker (1987) Western Kentucky University
16. Kyung-Hee Jin (1989) Korea
17. Nathan Feldman (1997) Washington and Lee University.
18. Gabriel Prăjitură (1999) State University of New York at Brockport
19. Sherwin Kouchekian (2000) University of Southern Alabama

Grants

- ◇ NSF Research Grants, 1968-1989; 1990-93
- ◇ NSF Sabbatical Grant, 1980-81.
- ◇ Indiana University Research Grant, 1984-87.
- ◇ NSF Grant to conduct The Special Year in Operator Theory, 1985-86.
- ◇ Argonne Universities Association Trust Fund Grant to conduct The Special Year in Operator Theory, 1985-86.
- ◇ Eisenhower Grant from Tennessee Higher Education Commission to conduct workshop for K-12 teachers, 1995.
- ◇ Appalachian Math and Science Partnership, NSF grant based at University of Kentucky, local PI for a subcontract, 2002-2007.

National Professional Service

- ◇ Organized special session in operator theory at national meeting of the AMS in Louisville, January 1984.
- ◇ Member of the American Mathematical Society-National Science Foundation Postdoctoral Fellowship Committee, 1984-1986.

- ◇ Editor, *Proceedings American Mathematical Society*, 1984-1988.
- ◇ Organized The Special Year in Operator Theory at Indiana University, 1985-86.
- ◇ National Science Foundation USME evaluation panel, 1991, 1993, 1994
- ◇ Reviewed Mathematics Department at the University of Alabama, 1993.
- ◇ Organized eighth annual Southeastern Analysis Meeting, 1992.
- ◇ Math Connection Teleconference participant, 1993.
- ◇ Member of three person panel that reviewed all mathematics departments at state universities in Arkansas, 1994.
- ◇ Chair of the steering committee for the Southeastern Analysis Meeting (an annual regional conference partially supported by the National Science Foundation), 1995-.
- ◇ Member of the American Mathematical Society Committee on Publications, February, 1995-1999.
- ◇ Chair of the steering committee for Young Analysts Meeting of the Southeast (an annual regional conference presently co-sponsored by the University of Tennessee and Georgia Tech University), 1995-.
- ◇ Member of The Council of the American Mathematical Society, February 1996–February, 1999.
- ◇ Member of the Mathematical Association of America Program Committee for MathFest 1997.
- ◇ Member of the Mathematical Association of America Planning Committee for MathFest 1997.
- ◇ Mathematical Association of America Carus Monographs Editorial Board, 1997-2000.
- ◇ Member of the Executive Committee of the American Mathematical Society, 1997-2001.
- ◇ Reviewed mathematics department of the University of Oklahoma, September 1997.
- ◇ Reviewed mathematics department of Wright State University, November 1997.
- ◇ Member of the Board of Trustees of the American Mathematical Society, 2001-2006. Re-elected to second term, 2006-2011.
- ◇ Member of the American Mathematical Society Committee to Review the Book Publishing Program, 1999.

- ◇ Program Review Committee for the mathematics department of Miami University, 2001.
- ◇ Member of the American Mathematical Society Committee on Meetings and Conferences, 2001-2002
- ◇ Editorial Board, *Scientiae Mathematicae* , Japanese Association of Mathematical Sciences, 2000–present.
- ◇ Associate editor, *Journal of Mathematical Analysis and Applications*, 2001–2005.
- ◇ Member of the American Mathematical Society Committee on Education, 2002-2006
- ◇ NSF panel to evaluate research proposals in operator theory and operator algebras, December 2002.
- ◇ Member of the American Mathematical Society Committee on Science Policy, 2007-present

Invited Talks

1977–78

- University of North Carolina (Principal speaker at conference on operator theory; gave 3 lectures)
- Virginia Tech Colloquium
- Cleveland State University Colloquium

1978–79

- University of Cincinnati Colloquium
- Western Michigan University Colloquium
- Central Michigan University Colloquium
- Special session on operator theory at AMS national meeting in Biloxi

1979–80

- CBMS conference at Oakland University
- Conference at Oberwolfach, Germany

1980–81

- Virginia Tech Colloquium
- University of New Hampshire Colloquium
- Dalhousie University Colloquium and seminar
- University of North Carolina Colloquium
- Conference on spectral theory at Trinity College, Dublin

1981–82

- Tulane University Colloquium
- Special session on operator theory at national AMS meeting in Cincinnati
- Wabash Extramural Functional Analysis Seminar

1982–83

- University of Houston Colloquium

Louisiana State University Colloquium
University of Arkansas Colloquium
University of Tennessee Barrett lecturer

1983–84

Michigan State University Colloquium
Distinguished Visiting Professor at Bucknell University
Special session in operator theory at national meeting of the AMS in
Louisville

One of the principal speakers (4 lectures) at NATO Conference “Operators and Function Theory” held at University of Lancaster, England

1984–85

University of Toronto Colloquium
Cleveland State University Colloquium
Case Western Reserve University Colloquium
Kent State University Colloquium
One of the two principal lecturers at a conference “Operators and Function Theory” held at Virginia Tech

1985–86

CBMS Conference at University of Nebraska
University of Virginia Colloquium

1986–87

University of Michigan seminar
University of Toronto seminar
State University of New York at Buffalo Colloquium
Wabash Extramural Functional Analysis Seminar
State University of New York at Stony Brook Colloquium
West Chester University Colloquium
University of Illinois Colloquium

1987–88

Conference on Operator Theory at Arizona State University
Visiting Distinguished Professor at Bucknell University
Invited Lecturer at American Mathematical Society Summer Institute
in Operator Theory

1988–89

Dalhousie University Colloquium and seminar
Carleton University Colloquium
University of Houston Colloquium
Texas A & M University Colloquium
Wabash Extramural Functional Analysis Seminar

1989–90

Steklov Institute of Mathematics at Leningrad
Moscow State University
Michigan State University Colloquium
University of Tennessee Colloquium

Function theory conference at University of Kentucky

1990–91

Southeastern Analysis Meeting in Charlotte NC (principal speaker-2 lectures)

1991–92 Vanderbilt University Colloquium

1992–93 Vanderbilt University (Shanks Lectures)

University of New Hampshire (Operator Theory Conference)

Indiana University (Conference on linear and non-linear analysis)

1993–94

Washington University Colloquium

1994–95

University of Virginia Colloquium

University of Richmond Colloquium

University of Tennessee at Chattanooga Colloquium

Invited talk at a special session of the American Mathematical Society meeting in Orlando

University of Tennessee Space Institute Colloquium

1995-96

Panel member of a discussion on “How you can defend your graduate program” at the national summer meeting in Seattle of the American Mathematical Society

1996-97

Talk in session of the National Chairs Colloquium for new department heads, Washington, DC

Invited talk at special session of the national AMS meeting, San Diego

University of Hawaii Colloquium and seminar

1997-98

Co-organizer of workshop for new chairs of PhD granting mathematics departments at AMS national meeting

Talk of nurturing adjunct faculty at MAA panel discussion at national meeting

Keynote speaker at Leadership conference sponsored by Project Kaleidoscope

1998-99 Vanderbilt University Colloquium

Co-organizer of workshop for new chairs of PhD granting mathematics departments at AMS national meeting

1999-2000

Rocky Mountain Chemistry Chairs Meeting, Brigham Young University, lecture on being a department head

Tuesday Topics public lecture, University of Tennessee

National Chairs Colloquium, National Academy of Science, Washington, Opening Address

Co-organizer of workshop for new chairs of PhD granting mathematics departments at AMS national meeting

Invited lecture to class on the Millennium, University of Tennessee Religious Studies Department

Texas Tech University Colloquium

2000-2001

University of Cincinnati Colloquium

2001-2002

Conference on Banach Spaces and Operator Theory, University of Memphis.

Colloquium at Virginia Tech.

2003-2004

Institute for Advanced Study seminar for meeting of *Women in Mathematics*.

Colloquium at Washington and Lee University.

2004-2005

University of Virginia Colloquium.

2005-2006

Featured speaker (3 talks) at the International Summer School on Operator Theory, Rabat, Morocco, May 2006. Featured speaker (3 talks), International Conference on Operator Theory and Function Theory, Seville, Spain, June 2006.

2006-2007

Keynote speaker at Honors Banquet for Mathematics Department at Millersville State University in Pennsylvania, April, 2007. Speaker at ceremony in memory of Paul Halmos, Mathematical Association of America, May 2007.