CURRICULUM VITAE

Updated June 1, 2020

1. PERSONAL INFORMATION

Mike Boyle
Professor Emeritus, Department of Mathematics
U.S. Citizen, born 1951

Educational background

Ph.D. Mathematics, University of Washington, Seattle, 1983
A.B. Mathematics, University of California, Berkeley, 1977
B.S. Chemistry, University of California, Berkeley, 1977
B.A. Psychology, Stanford University, 1974

Employment background

Professor Emeritus, University of Maryland, 2017 - .
Professor, University of Maryland, 1993-2016
Associate Professor, University of Maryland, 1989-1993
Assistant Professor, University of Maryland, 1984-1989 Department of Math.
T.J. Watson Postdoctoral Research Fellow, IBM Watson Research Center, Yorktown Heights NY Sept. 1984-Aug. 1985
Postdoctoral Fellow, Mathematical Sciences Research Institute, Berkeley CA, Sept. 1983-Aug. 1984

2. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES

a. Articles published, or accepted for publication, in refereed research journals

1. Lower entropy factors of sofic systems. Erg. Th. Dyn. Syst. Vol. 3, Part 4. pp. 541-557, Dec. 1983.

2. with S. Tuncel. Infinite-to-one codes and Markov measures. Trans. AMS Vol. 285, No. 2, pp. 657-684, Oct. 1984.

3. Shift equivalence and the Jordan form away from zero. Erg. Th. Dyn. Syst., Vol. 4, Part 3, pp. 367-379, Sept. 1984.

4. with B. Kitchens and B. Marcus. A note on minimal covers of sofic systems. Proc. AMS, Vol. 95, No. 3, pp. 403-411, Nov. 1985.

5. Constraints on the degree of a sofic homomorphism and the induced multiplication of measures on unstable sets, Israel J. Math., Vol. 53, No. l, pp. 52-68, 1986.

6. with W. Krieger. Periodic points and automorphisms of the shift, Trans. AMS Vol. 302, No. 1, pp. 125-149, 1987.

7. with B. Marcus and P. Trow. Resolving maps and the dimension group for shifts of finite type, Memoirs of the AMS, No. 377, 146 pages, 1987.

8. with D. Lind and D. Rudolph. The automorphism group of a shift of finite type. Trans. AMS, Vol. 306, No. 1, pp. 71-114, 1988.

9. Eventual extensions of finite codes. Proc. AMS, Vol. 104, No. 2, pp. 1-7, 1988.

10. A zeta function for homomorphisms of dynamical systems, Journal of the London Math. Soc., Vol. 40, Part 2, pp. 355-368, 1989.

11. with J. Franks and B. Kitchens. Automorphisms of one-sided subshifts of finite type, Erg. Th. Dyn. Syst., 10, 421-449, 1990.

12. with S. Tuncel. Regular isomorphism of Markov shifts is almost topological, Erg. Th. Dyn. Syst., 10, 89-100, 1990.

13. with U. Fiebig. The action of inert finite order automorphisms on finite subsystems of the shift, Erg. Th. Dyn. Syst., 11 (1991), 413-425.

14. with D. Handelman. The spectra of nonnegative matrices via symbolic dynamics. Annals of Math., 133, 249-316, 1991.

15. Almost flow equivalence for hyperbolic basic sets. Topology 31 (1992), 857-864.

16. with D. Handelman. Primitive matrices and algebraic shift equivalence. Trans. AMS, 336 (1993), 121-149.

17. with W. Krieger. Automorphisms and subsystems of the shift. J. reine angew. Math. (Crelle's J.) 437 (1993), 13-28.

18. with D. Handelman. Entropy versus orbit equivalence for minimal homeomorphisms, Pacific J. Math., Vol. 64, No. 1 (1994), pp. 1-13.

19. with D. Lind. Expansive subdynamics. Trans.AMS, Vol. 349, No. 1 (1997), 55-102.

20. with D. Handelman. Orbit equivalence, flow equivalence, and ordered cohomology, Israel J. Math. 95 (1996), 169-210.

21. Factoring Factor Maps, J. London Math. Soc. (2) 57 (1998), 491-502.

22. with J. Tomiyama. Bounded topological orbit equivalence and C*-algebras, J. Math. Society of Japan, Vol. 50, No. 2 (1998), 317-329.

23. with D. Fiebig and U. Fiebig. A dimension group for local homeomorphisms and endomorphisms of onesided shifts of finite type, J. reine angew. Math. 487 (1997), 27-59.

24. with B. Kitchens. Periodic points for onto cellular automata, Indagationes Mathem., N.S., 10 (4), (1999), 483-493.

25. A homeomorphism good on measures and bad on orbits, Appendix to Real coboundaries for minimal Cantor systems by N. Ormes, Pacific J. Math. 195 (2000), no.2, 473-475.

26. with A. Maass. Expansive invertible onesided cellular automata, J. Math. Society of Japan 52 (2000), no. 4, 725-740; Erratum, J. Math. Society of Japan 55 (2003), no. 4.

27. with D. Fiebig and U. Fiebig. Residual entropy, conditional entropy and subshift covers, Forum Math. 14 (2002), 713-757.

28. Flow equivalence of shifts of finite type via positive factorizations, Pacific J. Math. 204 (2002), no.2, 273-317.

29. with D. Huang. Poset block equivalence of integral matrices, Trans. AMS 355 (2003), no. 10, 3861-3886.

30. with D. Lind. Small polynomial matrix presentations of nonnegative matrices, Linear Algebra and its Applications 355 (2002), 49-70.

31. with T. Downarowicz. The entropy theory of symbolic extensions, Inventiones Math. 156 (2004), 119-161.

32. Some sofic shifts cannot commute with nonwandering shifts of finite type, Illinois J. Math. 48, Number 4 (2004), 1267-1277.

33. with M. Sullivan, Equivariant flow equivalence for shifts of finite type, by matrix equivalence over group rings, Proceedings of the London Math. Soc. 91 (2005), 184-214.

34. with J. Buzzi and R. Gomez, Almost isomorphism for countable state Markov shifts, J. Reine angew. Math. 592 (2006), 23-47.

35. Putnam's resolving maps in dimension zero, Erg. Th. Dyn. Syst. 25 (2005), no. 5, 1485-1502.

36. with Tomasz Downarowicz, Symbolic extension entropy: C^r examples, products and flows, Discrete and Continuous Dynamical Systems 16, Number 2 (2006), 329-341.

37. with Jerome Buzzi and Ricardo Gomez, Good potentials for almost isomorphism of countable state Markov shifts, Stochastics and Dynamics 7 (2007), no. 1, 1-15.

2

38. with Bryant Lee, Jointly periodic points in cellular automata: computer explorations and conjectures, Experimental Mathematics 16 (2007), No.3, 293-302.

39. with Michael Schraudner, Z^d group shifts and Bernoulli factors, Ergodic Theory and Dynamical Systems 28 (2008), no.2, 367-387.

40. with Michael Schraudner, Z^d shifts of finite type without equal entropy full shift factors, J. Difference Equations and Applications, 15 (2009), no. 1, 47–52.

41. with R. Pavlov and M. Schraudner, Multidimensional sofic shifts without separation and their factors, Transactions AMS 362 (2010), 4617-4653.

42. with H.K. Kim and F.W. Roush, Path methods for strong shift equivalence of positive matrices, Acta Applicandae Mathematicae, Vol. 126, Issue 1 (2013), 65-115.

43. with J. Buzzi and R. Gomez, Borel Isomorphism of SPR Markov Shifts, Colloquium Math. 137 (2014), no. 1, 127-136.

44. with J. Buzzi and K. McGoff, Bowen's entropy conjugacy conjecture is true up to finite index, Proc. Amer. Math. Soc. 143 (2015), no. 7, 2991-2997.

45. with Scott Schmieding, Strong shift equivalence and the generalized spectral conjecture for nonnegative matrices, Linear Algebra Appl. 498 (2016), 231-243.

46. with J. Buzzi, The almost Borel structure of surface diffeomorphisms, Markov shifts and their factors, J. Eur. Math. Soc. (JEMS) 19 (2017), no. 9, 2739-2782.

47. with Scott Schmieding, Finite group extensions of shifts of finite type: K-theory, Parry and Livsic. Ergodic Theory Dynam. Systems 37 (2017), No. 4, 1026-1059.

48. with Toke Carlsen and Soren Eilers, Flow equivalence of G-SFTs, 67 pages, to appear, Transactions AMS.

49. with Toke Carlsen and Soren Eilers, Flow equivalence and isotopy for subshifts. Dyn. Syst. 32 (2017), no. 3, 305-325; Corrigendum, Dyn. Syst. 32 (2017), no. 3, ii.

50. with Scott Schmieding, Strong shift equivalence and algebraic K-theory, J. Reine Angew. Math. 752 (2019), 63-104.

51. with Toke Carlsen and Soren Eilers, Flow equivalence of sofic shifts, Israel J. Math. 225 (2018), no.1, 111-146.

52. with Sompong Chuysurichay, The mapping class group of a shift of finite type, J. Modern Dynamics 13 (2018), 115-145.

53. with Benjamin Steinberg, Decidability of flow equivalence and isomorphism problems for graph C*-algebras and quiver representations, arXiv:1812.04555, 12 pages, Proceedings AMS to appear.

b. Articles in proceedings of symposia, conferences, etc.

1. Nasu's simple automorphisms. Dynamical Systems - Maryland 1986-1987, Proceedings of a Special Year, ed. J. Alexander, Springer Lecture Notes 1342, Springer-Verlag, pp. 23-32, 1988.

2. with W. Krieger. Almost Markov and shift equivalent sofic systems. Dynamical Systems-Maryland 1986-1987, Proceedings of a Special Year, ed. J. Alexander, Springer Lecture Notes 1342, Springer-Verlag, pp. 33-93, 1988.

3. The stochastic shift equivalence conjecture is false. Contemporary Math. 135 (1992), 107-110. in Symbolic Dynamics and its Applications.

4. Review of "Introduction to Symbolic Dynamics and Coding", by Marcus and Lind, SIAM Rev. Vol. 39, No. 2 (1997), 334-335.

5. with Jack Wagoner, Positive algebraic K-theory and shifts of finite type, Modern Dynamical Systems and Applications, Cambridge University Press (2004), 45-66.

6. with Michael C. Sullivan, Almost flow equivalence; appendix to the article "Twistwise flow equivalence and beyond" by Michael C. Sullivan, Contemporary Mathematics 385 (2005), Algebraic and topological dynamics, eds. S. Kolyada, Y. Manin and T. Ward.

7. Open problems in symbolic dynamics, in "Geometric and Probabilistic Structures in Dynamics", eds. K. Burns, D. Dolgopyat and Y. Pesin, Contemporary Mathematics 469 (2008), pp. 69-118.

c. Articles submitted for publication

1. with Scott Schmieding, Symbolic dynamics and the stable algebra of matrices, arXiv:2002.01051, 116 pages.

d. Primarily expository articles

1. Symbolic dynamics and matrices, in Combinatorial and Graph-Theoretical Problems in Linear Algebra. The IMA Volumes in Mathematics and its Applications, Vol.50 (1993), eds. R.A. Brualdi, S. Friedland and V. Klee, pp. 1-38.

2. Algebraic aspects of symbolic dynamics (among collected lectures from Temuco 1998 School in Symbolic Dynamics), in Topics in Symbolic Dynamics and Applications (2000), eds. F. Blanchard, A. Maass and A. Nogueira, Cambridge Univ. Press, pp. 57-88.

3. Positive K-theory and symbolic dynamics, in Dynamics and Randomness (2002), editors A. Maass, S. Martinez and J. San Martin, pp. 31-52; Vol. 7 of Nonlinear Phenomena and Complex Systems, Kluwer Academic Publishers.

4. with Karl Petersen, Hidden Markov processes in the context of symbolic dynamics, pp. 5-71, in Entropy of Hiddden Markov Processes and Connections to Dynamical Systems, London Math. Society Lecture Note Series 385, Cambridge University Press, 2011.

5. with Benjamin Weiss, Remembering Dan Rudolph. Ergodic Theory Dynam. Systems 32 (2012), no. 2, 319-322.

6. Remembering Ki Hang Kim. Acta Applicandae Mathematicae, Vol. 126, Issue 1 (2013), 3-5.

7. The work of Kim and Roush in symbolic dynamics, Acta Applicandae Mathematicae, Vol. 126, Issue 1 (2013), 17-27.

8. Daniel J. Rudolph (1949-2010), Notices Amer. Math. Soc. 60 (2013), no.9, 1177.

9. The work of Mike Hochman on multidimensional symbolic dynamics and Borel dynamics, J. Modern Dynamics 15 (2019), 427-435.

d. AWARDS AND OUTSIDE SUPPORT

MHEC co-PI UMCP/PGCPS Partnership Program Feb. 2008 - July 2009
NSF co-PI with several in UMD dynamics group for NSF grant support for 3 1/2 day spring dynamics conference, most recently through 2012. (This 3 1/2 spring conference at UMD has run annually beginning 1992.)
NSF half Summer support, etc.: Summer 2004- Spring 2007
NSF half Summer support, etc.: Summer 1997- Spring 2000
NSF summer support etc.: Summer 1986-Spring 1997

IRAD GRANT (via IBM), Summer 1986.
Principal Investigator for NSF support of C. Silva's visit to College Park, 1987-8.
Millman Endowment, Summer 1988
Graduate Research Board Semester Research Award (College Park), 1992
MSRI (Symbolic Dynamics Program Participant), Fall 1992
MSRI (Research Professor), Spring 1993

Corecipient of Hans Schneider Prize of the International Linear Algebra Society 1996

e. SUPPORTED LONG VISITS

Ottawa Summer 1985 (1 month)
Warwick Summer 1986 (6 weeks)
Heidelberg Summer 1987 (3 months)
Seattle Summer 1988 (3 months)
Seattle Summer 1989 (10 weeks)

Summer 1990: Seattle (3 weeks), Heidelberg (3 weeks), Ottawa (1 week)
Montreal Summer 1991 (2 weeks)
Japan Summer 1992 (3 weeks)
Israel June 1993 (4 weeks)
Warwick July-August 1994 (4 weeks)
Marseille/Luminy, Summer 1995 (5 weeks)
Heidelberg, Summer 1995 (2 weeks)
Heidelberg, Summer 1996 (2 weeks)
Santiago/Temuco, January 1997 (3 weeks)
Santiago, December 1998 - January 1999 (3 - 4 weeks)
Seattle 1999-2000 (1/2 salary for sabbatical)
Santiago December 2000 - January 2001 (3-4 weeks)
Warwick July 2003 (2 weeks)
Seattle August 2003 (3 weeks)
Max Plank Institute (Bonn) June-July 2004 (4 weeks)
Santiago December 2004 - January 2005 (one month)
Palaiseau (Ecole Polytechnique) January 2006 (one month)
Santiago, August 2006-February 2007 ("Dassault Chair")
Aarhus (1 week) and Copenhagen (3 weeks), June 2008
Santiago December 2008 - January 2009 (one month)
Copenhagen (University of Copenhagen) June 2010 (one month)
Orsay (Universite Paris-Sud), May/June 2012, 2 weeks
Copenhagen (University of Copenhagen) September-November 2013 (three months)
Orsay (U. Paris Sud) December 2013 - January 2014 (2 months)
Ottawa (U. Ottawa) March-midMay 2014 (2 1/2 months)
Vancouver (U. British Columbia) midMay-midAugust 2014; PIMS Distinguished Visitor and UBC
Visiting Professor (3 months)

e. Invited talks

November 1984, CUNY Dynamical Systems Seminar (New York)
November 1984, IAS Cellular Automata Seminar, (Princeton)
November 1985, Northwestern University (Evanston)
November 1985, George Washington University (Washington,D.C.)
June 1986, University of Warwick (England), 4 lectures
December 1986, Symbolic dynamics conference (College Park)
April 1987, AMS regional conference, symbolic dynamics and cellular automata section (Newark)
June 1987, University of Heidelberg (Germany), 3 lectures
June 1987, Colloque: Arithmetique des systemes code (CIRM, Luminy, France)
July 1987, Symbolic dynamics conference (Heidelberg, Germany)
October 1987, Midwest Dynamical Systems Conference (Boston)
March 1988, IAS Dynamics Seminar (Princeton)
March 1988, University of California, Dynamics Seminar (Berkeley)
March 1988, IBM Almaden Research Center (San Jose)
April 1988, CUNY Dynamics Seminar (New York)
May 1989, Bryn Mawr (Philadelphia)
April 1989, University of South Alabama (Mobile)
July 1989, Conference on Ergodic Theory and Symbolic Dynamics (Seattle), 3 lectures
August 1989, Second Conference of the Canadian Number Theory Association (Vancouver), 25-minute talk
October 1990, George Washington University (D.C.)
October 1990, Penn State/Maryland Regional Dynamics Conference (Penn State)
April 1991, IBM Watson Research Center (Yorktown Heights)
July 1991, Symbolic Dynamics Conference in honor of Roy Adler (Yale)
September 1991, Arithmetics and Symbolic Dynamics (CIRM, Luminy, France)

November 1991, IMA Workshop on Combinatorial and Graph-theoretic Problems in Linear Algebra (IMA, Minnesota)
March 1992, American University (Washington, DC)
July 1992, Tsuda College (Tokyo)
July 1992, Keio University (Yokohama)
July 1992, Mie University (Tsu)
July 1992, Summer Ergodic Theory conference (Sapporo), 4 lectures
December 1992, MSRI, Area III Seminar
April 1993, U.C. Berkeley Dynamics Seminar
May 1993, The Technion (Haifa), 3-lecture series
June 1993, The Technion, Matrix Theory International Conference
June 1993, The Technion, Non-negative Matrices, International Workshop (30 minutes)
June 1993, Beer-Sheva, Department Colloquium
April 1994, George Mason University, Department Colloquium
April 1994, College of William and Mary
April 1994, Northeast Dynamics, Conference (Stony Brook)
July 1994, Warwick, Ergodic theory of Z^d actions, International Workshop, 2 lectures
August 1994, Delft, Ergodic theory and dynamical systems conference
August 1994, Rotterdam, International Linear Algebra Society annual meeting (30 minutes)
October 94, Fields Institute (Waterloo Canada), Workshop on C*-algebras and Dynamical Systems.
July 1995, CIRM, Luminy, France, Arithmetics and Dynamics Conference
July 1995, Heidelberg, Krieger's Seminar
October 1995, Penn State, Maryland - Penn State Dynamics Conference
November 1995, Howard University, Math Dept. Colloquium
June 1996, Mt. Holyoke, Classification problems in C^*-algebras and dynamics
August 1996, Chemnitz, ILAS meeting, Hans Schneider Prize talk
January 1997, Temuco, Symbolic Dynamics School, 4 lectures
March 1997, Memphis, AMS Regional Meeting, Special Session in Symbolic Dynamics (short talk)
March 1998, Fairfax, Southeast Dynamics and Topology Conference
December 1998, Santiago, Complexity Fiesta
June 1999, IBM Yorktown Heights, seminar
August 1999, Minneapolis, IMA Workshop on Codes, Systems and Graphical Models
October 1999, Seattle, Rainwater Seminar
November 1999, Victoria, Dynamics Seminar
April 2000, Seattle, Rainwater Seminar
May 2000, Victoria, Northwest Dynamical Systems Conference
October 2000 San Francisco, AMS meeting section on Geometric and symbolic dynamics
December 2000, Santiago, Workshop on Dynamics and Randomness
February 2001, Bozeman, Dynamics seminar
January 2002, San Diego, symbolic dynamics session of AMS meeting
June 2002, East Lansing, Michigan State University, dynamics seminar
July 2002, CIRM, Luminy, France, Workshop on countable topological Markov chains: classification and recurrences,
July 2003, Univ. of Warwick, Symposium on Geometric and Probabilistic Aspects of Dynamical Systems, series of 3 lectures
October 2003, Midwest Dynamical Systems Conference (Indianapolis)
June 2004, Max Planck Institute (Bonn)
July 2004, Max Planck Institute (Bonn)
September 2004, Wesleyan Dynamics seminar (Middletown CT), two talks
September 2004, MSRI Recent Progress in Dynamics conference
October 2004, Penn State/Maryland Dynamics conference (Penn State)
December 2004, Dynamics and Randomness Conference, Santiago
January 2005, V Escuela Internacional de Sistemas Dinamicos, Santiago

February 2005, Dynamics seminar, Georgia Tech
August 2005, Northwest Dynamics Symposium, Victoria
November 2005, IUPUI Math. Dept. Colloquium, Indianapolis
January 2006, Ecole Polytechnique, Seminaire Ergodique Geometrie
November 2006, Colloquio de Sistemas Dinamicos, Universidad de Chile
December 2006, School on Information and Randomness, Universidad de Chile
October 2007, Conference on Entropy of Hidden Markov Processes and Connections to Dynamical
Systems, BIRS, Banff, Canada
May 2008, Mathematics Colloquium, DePaul University
May 2008, Rocky Mountain Dynamical Systems Conference, Park City, Utah
June 2008, Copenhagen, Denmark, 8 hours of lectures
August 2008, Northwest Dynamical Systems Symposium, Victoria
December 2008, Information and Randomness Conference, Santiago, Chile
February 2009, University of Connecticut, Storrs, Math Colloq.
May 2009, Kansas State University, invited ADVANCE lecture
February 2010, CIRM, Luminy, France, 3 hours of invited lecture, Multidimensional Subshifts and
Tilings Conference
August 2010, Dynamics Workshop, Pingree Park, Colorado
September 2010, Warwick, England, Symposium on Ergodic Theory and Dynamical Systems
December 2010, Pucon, Chile, Information and Randomness Conference
February 2011, University of Houston, Department of Mathematics Colloquium
June 2011, CIRM, Luminy, France, 2 hours of invited lecture, Beyond Uniform Hyperbolicity
Conference
August 2011, Fields Institute, Toronto, Workshop on Positivity
November 2011, Howard University, Math Dept. Colloquium
March 2012, Special Session "Tilings, substitutions and Bratteli-Vershik transformations" of Wash-
ington D.C. meeting of Amer. Math. Soc, (20 minutes)
April 2012, Northwestern University, Dynamics Seminar
June 2012, Universite Paris-Sud, Orsay, department colloquium
October 2012, University of British Columbia, Vancuover, dept. colloquium
October 2012, University of British Columbia, Vancuover, Marcus seminar (dynamics)
October 2012, Penn State Dynamics Conference
December 2012, IRAS (School on Information and Randomness), Puerto Varas, Chile
April 2013 Carolina dynamics conference, Chapel Hill
April 2013 BIRS workshop on Graph algebras
June 2013 PIMS Workshop on Automata and Symbolic Dynamics
June 2013 Grenoble School, Number Theory and Dynamics, 4 lectures
October 2013 U. Copenhagen, Operator Theory Seminar
October 2013 Center for Symmetry and Deformation
November 2013 U. Copenhagen, Conference on Flow equivalence
November 2013 Lund, Dept. Colloquium
December 2013 Orsay, Groupe de Travail, Dynamical Systems seminar
May 2014 U. Washington, Seattle, Rainwater Seminar
July 2014 U. Victoria, Dynamics Seminar
July 2014 Pingree Park Dynamics Conference
July, August 2014 U. British Columbia, Marcus seminar (three times)
January 2015 U. Kansas, Dept. Colloquium
March 2015 U.S. Naval Academy, Dept. Colloquium
March 2015 Morgan State, Dept. Colloquium
May 2015 Operator algebras conference (Lafayette, Lousiana)
June 2015 Rocky Mountain Dynamical Systems conference (Provo, Utah)
January 2016 Mittag-Leffler Institute (Stockholm) conference
October 2016 AMS Special Session on zero-dimensional dynamics (Denver, Col.)

February/March 2017 Groups of dynamical origin (Mexico City)
March 2017 U. Victoria Dynamics Seminar (Victoria, Canada)
April 2017 Pacific Northwest Dynamics Day (Seattle)
April 2018 Maryland-Penn State Dynamics Conference (College Park, Maryland)
May 2018 Northwestern Dynamics Seminar (Evanston, IL)
August 2019 "Stable algebra and symbolic dynamics" course, given with Scott Schmieding, at G2D2 school and conference, Yichang, China
August 2019, Minisymposium on discrete dynamical systems, Shanghai Jiao Tong University
August 2019, Fudan University, Shanghai

f. Memberships in honorary or professional societies

American Mathematical Society
International Linear Algebra Society

3. TEACHING AND ADVISING

a. Courses taught

Many (Fall 1985 - Spring 2016)

b. Ph.D. Students (with degree date)

1. Danrun Huang (Spring 1992) (jointly advised with Seymour Goldberg)
2. Nicholas Ormes (Spring 1997)
3. Sam Lightwood (Spring 1998)
4. Inhyeop Yi (Spring 2000) (jointly advised with Jonathan Rosenberg)
5. Ricardo Gomez (Summer 2000)
6. Angela Desai (Spring 2006)
7. Andrew Dykstra (Spring 2007)
8. Nicholas Long (Spring 2008)
9. Kevin McGoff (Spring 2011)
10. Sompong Chuysurichay (Spring 2011)
11. Scott Schmieding (Spring 2016)

4. Service

a. Departmental

Organizer: Symbolic Dynamics Seminar (1987-8)
Special Year in Dynamics (1986-7):
- main organizer, Symbolic Dynamics Conference
- solicited and/or refereed several papers for Proceedings of Special Year
Policy Committee (1985-6)
Salary Committee (1988)
Mathnet Committee (1989-90)
Annual department party committee, Chair (1989)
Math 240 textbook review committee, Chair (1990)
EEEO Officer (Fall 1990-Summer 1992)
Department Ombudsman (Fall 1993-1994)
Chair, ODE/Dynamics Field Committee (Fall 93 - Spring 95)
CMPS APT Committee (Fall 94 - Spring 96)
Chair, Promotions Committee (Fall 96 - Spring 98)
Salary Committee (Spring 97)
Peer Review Committee (Fall 97 - Spring 98)
Chair, Math-Stat Majors Committee (Fall 97 - Spring 99)
Coauthor, VIGRE Proposals (97, 98)

Coorganizer, Dynamics Seminar (Fall85-Spring86, F87-Sp88, F98-Sp99, F00-Sp01,F03-Sp04, F04-Sp05, F05-Sp06, F11-Sp12, F12-Sp13, F14-Sp15)
Undergraduate advising (every semester since Fall 00 or sooner)
Chair, Math-Stat Majors Committee (Fall 00 - Spring 01)
Chair, Graduate Student Teaching Committee (Fall 00-Spring 01)
Departmental Self-study, Spring 01
Flagship Hiring Committee, Spring 01
Associate Chair for Undergraduate Studies, August 01 - August 03
MCPS Committee (exploring creation of a masters for middle school math), Spring 04
Salary Committee, Spring 04
Undergraduate VIGRE supervisor, Spring 04-Spring 06
Chair, ODE/Dynamics Field Committee, Fall 05-Spring 06
Chair, Brin Chair Selection Committee Fall 05-Spring 06
CMPS PCC Committee, Fall 05 - Spring 06
Associate Chair for Undergraduate Studies, July 07 - May 10
CMNS representative to University Senate, Fall 2014-Spring 2016

b. Professional

JOURNAL REFEREE for
American Mathematical Monthly,
Annals of Mathematics,
Annales de l'Institut Fourier,
Archiv der Mathematik,
Chaos,
Colloquium Mathematicum,
Communications on Pure and Applied Analysis,
Complex Systems,
Documenta Mathematica,
Duke Mathematical Journal,
Dynamical Systems,
Electronic Research Announcements of AMS,
Ergodic Theory and Dynamical Systems,
Forum Mathematicum,
Fundamenta Mathematicae,
Geometric and Functional Analysis,
Illinois Journal of Math.,
Indagationes Mathematicae,
Inventiones Mathematicae,
Israel Journal of Math.,
J. fur Angewandte und Reine Mathematik (Crelle's Journal),
Journal of the American Mathematical Society,
Journal of Combinatorial Theory,
Journal of Modern Dynamics,
Journal d'Analyse,
Linear Algebra and Its Applications,
London Math. Society,
Monatshefte fur Mathematik,
Nonlinearity,
Proceedings of the American Mathematical Society,
Real Analysis Exchange,
Rocky Mountain Journal of Mathematics,
Stochastics and Dynamics,
Transactions of the American Mathematical Society
Uniform Distribution Theory

GRANT/PROPOSAL REVIEWER
NSF, NSA, BIRS (Banff International Research Station, Canada) NSERC (Canada), Israel Science
Foundation, CONICYT (Chile)

CONFERENCE ORGANIZATION
Co-organizer, Symbolic Dynamics and Coding Theory, Special Year Conference at College Park,
December 1986
Co-organizer, Special Session on Measurable Dynamics, AMS Meeting at College Park April 1988
Co-organizer, Workshop on Measurable Dynamics, College Park, September 1989
Co-organizer, Low-Dimensional Dynamics Conference, College Park, April 1990
Chair, Organizing Committee for MSRI Symbolic Dynamics Workshop, (5 days) Nov. 1992
Co-organizer, Maryland-Penn State Regional Dynamics Conference, (4 days) College Park, March
1994
Co-organizer, Maryland-Penn State Regional Dynamics Conference, (4 days) and Symbolic Dynamics Workshop (1 day), College Park, March 1995
Co-organizer, Maryland-Penn State Regional Dynamics Conference, (4 days) and Symbolic Dynamics Workshop (1 1/2 days), College Park, March 1996
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, May
1997
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days) and Symbolic Dynamics Workshop (1 1/2 days), College Park, March 1998
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2001
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2002
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2004
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2005
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2008
Co-organizer, Maryland-Penn State Regional Dynamics Conference (4 days), College Park, March
2010
Co-organizer, First Mathematical Conference of the Americas, Guanajuato, August 2013, Special
Session in Symbolic Dynamics
Co-organizer, Maryland-Penn State Regional Dynamics Conference (3 days), College Park, April
2016

NSF PANELS
Fall 2007
Fall 2009

EXTERNAL REVIEWER
Bowie State University Department of Mathematics, Spring 2004

EDITORIAL BOARD
Ergodic Theory and Dynamical Systems, 2000 - .

EXECUTIVE EDITOR
Ergodic Theory and Dynamical Systems, 2009 - 2015 .

GUEST EDITOR

Acta Applicandae Mathematicae, Kim memorial volume, 2013
J. Modern Dynamics 13 (2018), Adler memorial volume, coeditor.