Linda Keen Lehman College and Graduate Center, CUNY

Education:

B.S., The City College of New York, 1960M.S., New York University 1962Ph.D. New York University 1964

Professional Experience

The City University of New York

- Hunter College, Assistant Professor, 1965–1967
- Lehman College, Associate Professor, 1968–1973
- Lehman College, Professor, 1974–2017
- Graduate Center Doctoral Faculty in Mathematics, 1966–2017
- Executive Officer GC Math Program 2012-2015
- Graduate Center Doctoral Faculty in Computer Science, 1987–1992
- Graduate Center Doctoral Faculty in Mathematics, 2017 Professor Emerita

Visiting Positions

- Institute for Advanced Study: Visiting Member, 1964–1965
- University of California, Berkeley Visiting Associate Professor, September–December 1971
- Universität Bonn, Mathematisches Institüt, Visiting Member, 1973–1974
- Columbia University, Visiting Professor, 1980–1981
- Research Associate, Instituto de Matematica Pura y Aplicada, C.N.Pq., Rio de Janeiro, Brazil, August–October 1985,
- Member, Mathematical Sciences Research Institute, Berkeley, March 1986, Sept 1992, Jan 1995
- Boston University, Visiting Professor, September 1987–January 1988
- IBM Research Visiting Scientist, Jan-Dec 1988, Aug-Dec 1993
- Max Planck Institüt, Member, May–June 1988
- Visiting Professor, Princeton University, September 1989-June 1990
- Visiting Professor, Danish Technical University, June 1990
- Visiting Lecturer, M. I. T., April 1991
- Visiting Professor, Fudan University, May, 1991, April 2008
- Visiting Member, IMS SUNY Stonybrook, Spring 1993
- Visiting Scientist, Warwick University, 1988,1990,1992,1993,1996,1997
- Visiting Scientist, Polish Academy of Sciences, March 2000, May 2001
- Visiting Scientist, Morningside Institute, Beijing, China, March 2002, April 2007, April 2010, April 2011, April 2012, April 2014
- Visiting Scientist, Fields Institute, Toronto, Canada, Februrary 2006
- Visiting Scientist, University of Barcelona, 2009, 2012, 2014, 2015, 2017
- Visiting Scientist, Massey University, NZ, Feb 2010

Honors and Awards:

AAUW Postdoctoral Fellowship Award, 1964–65 National Science Foundation Postdoctoral Fellow, 1964–65 AMS Invited hour lecture, Wash DC, 1974 MAA Invited hour address, Boulder CO, 1989 National Science Foundation Visiting Professorship for Women 1989-90 Edwin S. Webster-Abby Rockefeller Mauze Award, M.I.T. 1990 AWM Emmy Noether Lecturer, 1993 Finnish Mathematical Society Invited Foreign Speaker, Jan 1991 Lehman College Foundation Faculty Award, 1998 Joint Irish and London Mathematical Societies Invited Speaker, 1998 "LindaFest" Conference to celebrate Linda Keen's 60th Birthday, CUNY, 2000 Lehman College Fellowship Award, 2005 Lehman College Award for Excellence in Research and Scholarship 2006 Swedish Royal Academy of Sciences Kovalevsky Days Main Speaker, 2006 Honoree at Conference on Conformal Dynamics and Hyperbolic Geometry to Celebrate the Contributions of Linda Keen, CUNY, 2010 Fellow of the American Mathematical Society, 2012 Inaugural Class Fellow of the Association for Women in Mathematics, Inaugural Class

Previous Grants:

National Science Foundation Research Grants: 1966–70; 1973–74; 1977–80; 1985–95,1996-99
City University of New York Faculty Research Awards: 1971–72; 1977–83; 1985–86, 1993-2003,
National Science Foundation Grant for Bers Colloquium, 1995
National Science Foundation - New York City Research Project Consultant, 1988–91
National Science Foundation AWM Grant 1985–86
National Science Foundation SCREMS Grant 1983–85

Recent and Current Grants:

National Science Foundation Award for VI Ibero-American Conference on Geometry 2014-15
National Science Foundation Award for V Ibero-American Conference on Geometry 2010-12
CUNY Collaborative Research Grant 2013-15
PSC-CUNY Research Award 2003-11,13-15
National Science Foundation STEM Lehman College Mentoring and Scholarship Program Award 2007-11
National Science Foundation Award for Conference on Dynamics and Topology 2007-8
National Science Foundation CSMES Lehman College Mentoring and Scholarship Program Award 2001-07
National Science Foundation Award for the Snowbird Conference on 25 years of Complex Dynamics 2004
IBM-Lehman College Internship Program 1999-2012

Professional Service: Editorial

Founding and Managing Editor, AMS Electronic Journal of Conformal Geometry and Dynamics, 1997-2005, Editorial Board 2005–7
Member Editorial Board, Annales of Finnish Academy of Science 1996– Coordinating Editor, Proc. AMS 1993-2006
Member Editorial Board, Journal of Geometric Analysis, 1991–2001
Contributing Editor, Math. Intelligencer, 1990–
Member Editorial Board, UME Trends, 1989-91

Professional Service: Administrative

American Mathematical Society

Elected Member at Large of the Council 1981–83 Elected to Nominating Committee 1983–84, Chair 1984 Member Committee on Professional Ethics 1986–89, Chair 1988–89 Member Committee to select speakers for National Meetings 1988–90 Chair, panel to select speakers for Joint AMS-MAA meetings, 1988 Elected to Editorial Boards Committee 1989-1992, Chair 1991 Chair, Satter Prize Committee 1990 Elected Vice President, 1992-95 Member Joint Policy Board on Mathematics 1992-95 Member Science Policy Committee 1992-95 Member Meetings Policy Committee 1992-96 Member Ad Hoc Committee on Governance, 1994 Member Committee to draft a Federal Science Policy Statement, 1994-95 Chair, Committee to write Ethical Guidelines and Procedures for the Committee on Professional Ethics, 1992-96 Elected member Board of Trustees, 1999-2009 Chair, Board of Trustees, 2003, 2007 Elected Nominating Committee, 2005–7, Chair 2006 Board of Math Reviews 1999-2009, President 2003, 2008 Elected Associate Treasurer 2009-2011 Association for Women in Mathematics Elected Member of Council 1978-81

President 1985–86 Long Range Planning Committee 1992-93 Nominating Committee 1993 Chair, Louise Hay Prize Committee 1997 Travel grants committee, 1999-2001

Executive Service to other Professional Organizations

Conference Board of the Mathematical Sciences, Elected Member of Executive Committee 1984–86

Board of Trustees, Inst. for Pure and Applied Mathematics, UCLA 2006–2011 Board of Trustees, ICM-86 (Int'l Congress of Mathematicians) 2003-2013 Science Advisory Board, Math. Sciences Research Institute, 2009-2012

Mathematics Association of America

Merten Hasse Prize Committee 1990-92

National Science Foundation

Member Panel to select NSF Postdoctoral Fellows, 1981–83 Chair Oversight Committee, 1983

Member Panel to evaluate NSF SCREMS proposals, 1984–85

Member Panel to select NSF Graduate Research Fellows, 1991-93

Member Panel to select NSF Research Training Grant Awardees 2003

Member Panel to select NSF Research Grant Awardees 2007, 2011, 2013, 2015, 2017, 2019

National Research Council

Member U. S. National Committee for Mathematics 1990-93 Chair, 1991-93

U. S. Delegate to International Mathematical Union 1990

Other

Member Steering Committee, International Congress of Mathematicians 1986 Charter Member, Mayor's Commission for Science and Technology of the City of New York 1984–1985

Member Panel to select NATO Postdoctoral Fellows 1982

Member Panel to evaluate Mathematics Department, SUNY Potsdam, 1979 Member Panel to evaluate Mathematics Dept, Rutgers, Newark, March 1988 Member Panel to review minority program at Univ Minn April 1988 External Review Committe for Mathematics, SUNY Westbury, April 2007 External Review Visitor for Math Department, NJCU, Oct. 2008 External Review Commitee, Math and CS Dept, BCC, 2019

University Service: selected

Lehman College, City University of New York

Departmental Personnel and Budget Committee 1982-89,96-05,2007-10 PSC-CUNY Grants Mathematics Panel 1981-84,2000-04 Departmental Educational Policy Committee 1996-02 Chair, Search Committee for Chief Librarian, 1999-00 Chair, Search Committee for Dean of Natural and Social Science, 1995-96 Co-Chair, Long Range Planning Committee 1991-92 Acting Associate Provost, January 1987–June 87 Deputy Chairman Department of Mathematics and Computer Science, 1982–86

Graduate Center, City University of New York Executive Officer Mathematics Program, 2012-2015

Mathematics Program Executive Committee, 1997-2016 Doctoral Faculty Policy Committee, 2000-2002 Provost's Advisory Committee, 2000-2003 Coordinator Mathematics Colloquium Graduate Center 1982-83 Committee on Computer Policy, Graduate Center 1978-84 Curriculum and Degree Requirements Committee Graduate Center 1984-86 President's Faculty Advisory Committee, Graduate Center 1983-85 President's Cabinet, Graduate Center, 1984-85 Committee on Committees, Graduate Center, 1988-89

Non-campus based City University of New York

Faculty Advisory Committee to the Research Foundation 2004–8 Ad hoc committees to settle faculty grievances based on arbitration, 1998, 2002 and 2005

Mathematics Liason to University Committee on Research, 1986-89, Executive Committee, University Committee on Research, 1988

Selected Recent Invited Addresses and Conferences:

2002

Spring Semester in Complex Dynamics, Morningside Center for Mathematics Beijing, China

2003

AMS special session on Complex Dynamics, Bloomington, Ind Workshop on Dynamical Systems, Denton TX Workshop on Kleinian Groups, Newton Institute, Cambridge, UK Invited speaker at Math Camp for Girls, St Thomas Univ. 2004AIM Conference on Thompson's Group, Palo Alto, CA AMS special session on Topology and Teichmüller theory, USC, Los Angeles CA Conference on 25 years of Complex Dynamics, Park City Utah Wesleyan Conference on Kleinian Groups, Wesleyan CT Workshop on Holomorphic Dynamics, Warwick England 2005Ahlfors-Bers Conference, Ann Arbor, MI Conference on Holomorphic Dynamics, Luminy, France 2006Conference on Teichmüller Theory, Allahabad India Workshop on Holomorphic Dynamics, Toronto, Canada Conference on Holomorphic Dynamics, Paris, France Organizer AMS Special Session on Teichmüller Theory, Storrs CT Main Speaker, Swedish Royal Academy of Sciences Kovalevsky Days 2007 Conference on Geometry of Riemann Surfaces, Anogia, Crete Workshop on Teichmüller Theory, MSRI, Berkeley, CA 2008 Speaker and Organizer, Conference on Dynamics and Topology, Barcelona, Spain 2009AMS Special Session on Complex Dynamics and Complex Function Theory, Washington, DC Conference in Honor of Fred Gardiner's 70th Birthday,

CUNY Graduate Center

2010

AIMS Conference on Dynamics, Dresden Germany AMS Special Session on Teichmüller theory in honor of Cliff Earle Organizer, V IberoAmerican Congress on Geometry, Pucon, Chile

2011

City College of New York, Dynamics Seminar
Complex Analysis Seminar, CUNY
Organizer, Kleinian Groups, Conference in honor of Caroline Series, Warwick, England
AWM 40th Anniversary Celebration Conference, Providence, RI
Fall Semester in Complex Dynamics, Morningside Center for Mathematics Beijing, China

2012

Complex Analysis Seminar, CUNY

Complex Analysis Seminar, SUNY StonyBrook

2013

AMS Special Session on Complex Dynamics, San Diego Conference in honor of Ravi Kulkarni, Queens College

2014

CUNY Complex Analysis seminar

2015

AMS Special Session on Holomorphic Dynamics, San Antonio, TX

AMS- Portugese Special Session on Holomorphic Dynamics, Porto, Portugal 2016

AMS Special Session on Teichmüller Theory and related topics, StonyBrook 2017

Holomorphic Dynamics Workshop, Puebla, Mex.

AMS Special Session on Geometric Function Theory and related topics, Hunter College

2020

Holomorphic Dynamics Workshop, Puebla, Mex.

Selected Recent Colloquium and Seminar Talks:

2002

Osaka City University Colloquium SUNY Stonybrook Dynamical Systems seminar USC Colloquium USC Topology Seminar 2003SUNY Stonybrook Dynamical Systems seminar 2004Univ of North Carolina Colloquium SUNY Stonybrook Dynamical Systems seminar 2005Univ of Toronto Dynamical Systems seminar Boston University Dynamical Systems seminar 2006St. John's University Colloquium 2007 Morningside Institute Beijing Dynamics Colloquium Bronx Community College Colloquium 2008 Complex Analysis Seminar, Fudan University, Shanghai, China Complex Analysis Seminar, Nanjing University, Nanjing, China 2009Mathematics Colloquium, Salamanca University, Salamanca, Spain Dynamics Seminar, Univ. of Barcelona, Barcelona, Spain 2010 Morningside Institute Beijing Dynamics Colloquium City University of Hong Kong Colloquium **CUNY** Complex Analysis Seminar 2011 University of Michigan Colloquium, Ann Arbor, MI Kyoto University Conference on Dynamics, Kyoto, Japan **CUNY** Complex Analysis Seminar 2012 University of Barcelona Colloquium, Barcelona, Spain Morningside Institute Beijing Dynamics Colloquium **CUNY** Complex Analysis Seminar 2013 **CUNY** Complex Analysis Seminar 2014 **CUNY** Complex Analysis Seminar Bronx Community College Colloquium Morningside Institute Beijing Dynamics Colloquium University of Michigan, Ann Arbor, MI, Complex Dynamics Seminar Chilean Congress on Geometry, Temuco Chile

2015

CUNY Complex Dynamics and Research Seminar

2016

University of North Carolina Dynamics Seminar

2017

Colloquium, Cuernavaca, Mex.

2018

University of Michigan, Ann Arbor, MI, Complex Dynamics Seminar CUNY Complex Dynamics and Research Seminar

2019

CUNY Number Theory Study Group Seminar

CUNY Complex Dynamics and Research Seminar

CCNY Colloquium

2020

Complex Analysis and Dynamics Seminar, CUNY

Publications of Linda Keen

- Canonical Polygons for Finitely Generated Fuchsian Groups. Acta Mathematica 115 (1966).
- Geometric Moduli on Riemann Surfaces. in Proc. of Conf. on Quasi- Conformal Mappings, Tulane, 1965.
- Intrinsic Moduli on Riemann Surfaces. Annals of Mathematics 84 #3 (1966), 404–420.
- 4. An Extremal Length on a Torus. Journal d'Analyse Mathematique XIX (1967).
- 5. On Fricke Moduli. Advances in the Theory of Riemann Surfaces, Princeton, 1971.
- 6. On Infinitely Generated Fuchsian Groups. Journal of the Indian Math. Soc. 35 (1971).
- 7. Correction to "On Fricke Moduli," Proc. A.M.S. July 1973.
- Collars on Riemann Surfaces, Proc. Conf. on Riemann Surfaces, Univ. of Maryland, Princeton, 1973.
- 9. On Fundamental Domains and the Teichmüller Modular Group. In *Contributions to Analysis*, Academic Press, 1974.
- 10. A Modular Group and Riemann Surfaces of Genus 2, Math. Zeitschrift 142 (1975).
- 11. A Rough Fundamental Domain for Teichmüller Spaces, Bull A.M.S. November 1977.
- On Hyperelliptic Schottky Groups, Annales Academiae Scientiarum Fennicae 5 (1980), 165–174.
- 13. Accessory Parameters and the Uniformization of Punctured Tori, *Proc. of Conf. on Automorphic Forms* Pittsburgh, Pennsylvania, 1978.
- (With H.E. Rauch and A.T, Vasquez) Moduli of Punctured Tori and the Accessory Parameter of Lamé's Equation. *Trans. A.M.S.* 225 (November 1979), 201–230.
- 15. Teichmüller Spaces of Punctured Tori I, Complex Variables, Th. and Appl., 1983.
- 16. Teichmüller Spaces of Punctured Tori II, Complex Variables, Th. Appl., 1983.
- 17. Trace Moduli for Quasifuchsian Groups, J. Math. Kyoto Univ. 26 #1 (1986).
- (with L. Goldberg) A Finiteness Theorem for a Dynamical Class of Entire Functions, J. Ergodic Theory and Dyn. Sys., vol 6, 1986.
- The Dynamics of Holomorphic Self-maps of C^{*}, in Holomorphic Functions and Moduli, Springer 1988, Ed. D. Drasin et al.
- Topology and Growth of a Special Class of Holomorphic Self-maps of C^{*}. J. Ergodic Theory and Dyn. Sys., vol 9, 1989.
- (with R. Devaney) Dynamics of Tangent, Proc. Maryland Special Year in Dynamics, 1342, Springer 1987

- (with R. Devaney) Dynamics of Maps with Constant Schwarzian, Proc. Nevanlinna Colloquium, Joensuu, 1351, Springer, 1987
- (with R. Devaney) Dynamics of Meromorphic Functions: Functions with Polynomial Schwarzian Derivative, Ann. École Normale Superieure, 4^e série, t.22, 1989, 55-79
- 24. Julia Sets, In *Chaos and Fractals: The Mathematics Behind the Computer Graphics* Proc. Symposia in Appl. Math, 39, AMS, 1989, Ed. R. Devaney and L. Keen
- 25. (with L. Goldberg) The Mapping Class Group of a Generic Quadratic Rational Maps and Automorphisms of the 2-Shift, *Invent. Math*,1990, 101, 335-372
- 26. (with R. Devaney and P. Blanchard) The Dynamics of Complex Polynomials and Automorphisms of the Shift, *Invent. Math*, 1991, 104.
- 27. Dynamics of Quadratic Polynomials, Arkhimedes, 1991, 2, 20-33
- (with C. Series) Pleating Coordinates for Teichmüller Space, Bull. AMS,vol. 26, 1, 1992, 141-146
- (with C. Series) Pleating Coordinates for the Maskit Embedding of Teichmüller space for a punctured torus, *Topology*, Vol. 32, No. 4, pp. 719-749, 1993.
- (with B. Maskit and C. Series) Geometric finiteness and uniqueness for Kleinian groups with circle packing limit sets, *Journal von Reine und Angewandte Math.*, 436, 1993, 209-219.
- (with C. Series) Pleating Coordinates for the Riley Slice of Schottky Space, Proc. L.M.S., vol.69, part 1 1994, 72-90.
- 32. Hyperbolic geometry and spaces of Riemann surfaces, *Mathematical Intelligencer*, vol.16, 3, 1994, 11-19.
- (with C. Series) Continuity of Convex Hull Boundaries, Pac. J. Math, vol. 168, 1, 183–206, 1995.
- Julia Sets of Rational Maps, in *Complex Dynamical Systems*, Proc. Symposia in Appl. Math, 49, AMS,1995, Ed. R. Devaney, 71-89.
- 35. (with A. Epstein and C. Tresser) The set of maps $F_{a,b}: x \mapsto x + a + \frac{b}{2\pi} \sin(2\pi x)$ with any given rotation interval is contractible, *Comm. Math. Phys.*, 1995.
- 36. (with J. Kotus) Dynamics of the family $\lambda \tan z$, J. Conf. Geom. and Dyn., 1997, 28–57(electronic)
- 37. (with J. Kotus) Ergodicity of some classes of meromorphic functions. Ann. Acad. Sci. Fenn. Math. 24 (1999), no. 1, 133–145.
- (with C. Series) How to Bend Pairs of Punctured Tori, in J. Dodziuk and L. Keen editors, *Lipa's Legacy, Proceedings of the Bers Colloquium*, 1995, Contemp. Math. 211, 359-388. AMS 1997.
- (with F. Gardiner) Holomorphic Motions, Lipman Bers, selected works parts I and II Ed. I. Kra, B. Maskit, AMS 1999
- (with F. Gardiner) Holomorphic motions and quasi-Fuchsian manifolds. Complex geometry of groups (Olmu, 1998), 159–174, Contemp. Math., 240, Amer. Math. Soc., Providence, RI, 1999

- 41. (with J. Parker and C. Series) Combinatorics of simple closed curves on the twice punctured torus. Israel J. Math. 112 (1999), 29–60
- (with F. Gardiner) Coverings of Cantor sets. In the tradition of Ahlfors and Bers (Stony Brook, NY, 1998), 115–130, Contemp. Math., 256, Amer. Math. Soc., Providence, RI, 2000.
- 43. (with J. Kotus) On period doubling phenomena and Sharkovskii type ordering for the family $\lambda \tan(z)$. Value distribution theory and complex dynamics (Hong Kong, 2000), 51–78, Contemp. Math., 303, Amer. Math. Soc., Providence, RI, 2002.
- 44. (with J. Gilman) Word sequences and intersection numbers. Complex manifolds and hyperbolic geometry (Guanajuato, 2001), 231–249, Contemp. Math., 311, Amer. Math. Soc., Providence, RI, 2002
- 45. (with C. Series) Pleating invariants for punctured torus groups, *Topology*, vol 43, no 2, 447-491 2004.
- (with R.L. Devaney and P. Blanchard) Complex Dynamics and Symbolic Dynamics, Symposia in Appl., 60 Math, AMS (2002) 37–60
- 47. Complex and Real Dynamics for the family $\lambda \tan(\mathbf{z})$, Proceedings of the Conference on Complex Dynamics, RIMS Kyoto Univ. Oct. 2001, Publ. No 1269 (2002), 93–102
- (with N. Lakic), Forward Iterated Function Systems, Complex Dynamics and Related Topics, lectures at the Morningside Center of Mathematics, New Studies in Advanced Mathematics, IP Vol 5 2003.
- Featured Review of Hyperbolicity of renormalization of critical circle maps by Michael Yampolsky, Publ. IHES 96, (2003), MR1985030 (2004j:37071)
- (with J. Gilman) Two generator discrete groups: hyperbolic handlebodies, Geometria Dedicata, 110 (2005) 159–190.
- (with N. Lakic), Random holomorphic iterations and degenerate subdomains, Proc. AMS, 134, no. 2, (2006) 371–378
- 52. (with S. Yuan) Parabolic perturbation of the family $\lambda \tan z$. Complex dynamics, Ed. R. Devaney, L. Keen, 115–128, Contemp. Math., 396, Amer. Math. Soc., Providence, RI, 2006.
- 53. (with N. Lakic) Accumulation points of iterated function systems. Complex dynamics, Ed. R. Devaney, L. Keen, 101–113, Contemp. Math., 396, Amer. Math. Soc., Providence, RI, 2006.
- 54. Problems from the sessions at the Snowbird Conference, Complex dynamics, Ed. R. Devaney, L. Keen 101–113, Contemp. Math., 396, Amer. Math. Soc., Providence, RI, 2006.
- 55. Book Review of *Indra's Pearls*, by D. Mumford, C. Series and D. Wright, Camb. Press, Math. Intelligencer, 2005

- (with J. Gilman) Planar families of discrete groups. The geometry of Riemann surfaces and abelian varieties, 79–88, Contemp. Math., 397, Amer. Math. Soc., Providence, RI, 2006.
- (with N. Lakic) Accumulation constants of iterated function systems with Bloch Target domains, Annals of Finnish Acad. Sci., Vol. 32, Fasc. 1, 73–82, 2007
- (with N. Lakic) A generalized hyperbolic metric for plane domains. In the Tradition of Ahlfors-Bers IV, 107–118, Contemp. Math. 432, Amer. Math. Soc. 2007
- (with N. Lakic)Limit points of iterated function systems, In *Teichmüller theory and Moduli Problems*, Lecture Notes of the Ramanujan Math. Soc. Eds. Biswas, Kulkarni and Mitra, 2010, 451-463.
- 60. (with G. Zhang), Bounded type Siegel disks of a one dimensional family of entire functions, J. Ergodic Th. and Dyn. Systems, 29 (2009), no. 1, 137–164.
- (with J. Gilman) Discreteness Discreteness Criteria and the Hyperbolic Geometry of Palindromes, arXiv:0808.3488, Conformal Geometry and Dynamics, 13 (2009), 76-90
- (with J. Gilman) Cutting Sequences and Palindromes, Geometry of Riemann Surfaces Series: London Mathematical Society Lecture Note Series (No. 368), 194-216, 2010. arXiv:0803.0234
- (with J. Gilman) Enumerating generators in rank two free groups, arXiv:0802.2731, Journal of Algebra 332 (2011), pp. 1-13
- (with R. Flek) Boundaries of Bounded Fatou Components of Quadratic Maps, Jour Diff Eqns and Applications, Vol.16, Issues 5-6, 2010, 555-572.
- Introduction to the Special Issue of Jour. Diff. Eqns. and Applic. in honor of Robert.
 L. Devaney, Jour Diff Eqns and Applications, Vol.16, Issues 5-6, 2010,407-409
- 66. (with J. Gilman) Lifting free subgroups of PSL(2,R) to free groups. Quasiconformal mappings, Riemann surfaces, and Teichmüller spaces, 109–122, Contemp. Math., 575, Amer. Math. Soc., Providence, RI, 2012. 20H10 (30F35 30F40)
- 67. Book review of "In service to Mathematics: The Life and Work of MINA REES" by Amy Shell-Gellasch, published in AWM Newsletter August 2012
- (with T. Chen and Y. Jiang) Appendix to A framework towards understanding the characterization of holomorphic maps, in *Frontiers in Complex Dynamics*, Princeton, 2014.

- 69. (with F. Gardiner) Lipman Bers, a Retrospective, In Lipman Bers, a Life in Mathematics, ed. L.Keen, I. Kra, R. Rodriguez, AMS, 2015.
- 70. (with T. Chen and Y. Jiang), Bounded geometry and families of meromorphic functions with two asymptotic values. Proceedings of the Sixth International Congress of Chinese Mathematicians. Vol. II, 343–361, Adv. Lect. Math. (ALM), 37, Int. Press, Somerville, MA, 2017.
- (with T. Chen and Y. Jiang), Bounded geometry and characterization of some transcendental maps. Indiana Univ. Math. J. 66 (2017), no. 5, 1537–1571.
- 72. (with J. Gilman) Winding and unwinding and essential intersections in H³. In the tradition of Ahlfors-Bers. VII, 125–138, Contemp. Math., 696, Amer. Math. Soc., Providence, RI, 2017.
- 73. (with I. Kra), Clifford J. Earle: a life in mathematics and music (1935–2017). Notices Amer. Math. Soc. 65 (2018), no. 1, 52?53.
- 74. (with T. Chen and Y. Jiang) Cycle doubling, merging, and renormalization in the tangent family. Conform. Geom. Dyn. 22 (2018), 271–314.
- 75. (with T. Chen) Dynamics of generalized Nevanlinna functions, Discrete and Disc. Dyn. Systems, 39 (2019), no. 10, 5659.568 arxiv: 1805.10974
- 76. (with N. Fagella) Stable components in the parameter plane of meromorphic functions of finite type, Jour. Geom. Anal. , 2020 arxiv:1702.06563.
- 77. (with T. Chen and Y. Jiang) Parameter space slices for meromorphic functions with two asymptotic values, submitted,1112.2557
- 78. (with T. Chen and Y. Jiang) Accessible boundary points in the shift locus of a family of meromorphic functions with two asymptotic values, Arnold J. Math, Lyubich Volume, 2020
- 79. A Collaboration in Dynamical Systems in *Do Not Erase* by Jessica Wynne, Princeton Unversity Press, to appear.
- 80. Dynamics of Maps with Two Singular Values. to appear, Proc. of the Conference on Holomorphic Dynamics, Puebla, Mexico, 2020.
- 81. (with T. Chen) Parameter spaces of the families $\mathcal{F}_{p,q} = \{\lambda \tan^p z^q\}$, in preparation.

Books:

- *The Legacy of Sonya Kovalevskaya*; Proceedings of a Symposium held at Radcliffe College and 3 AMS special sessions. Ed. L. Keen, Contemp. Math. 64, AMS 1987.
- Chaos and Fractals: The Mathematics Behind the Computer Graphics Proc. Symposia in Appl. Math, 39, AMS, 1989, Eds. R. Devaney and L. Keen.
- Lipa's Legacy, Proceedings of the Bers Colloquium, Ed. J. Dodziuk, L. Keen, Contemp. Math. 211, AMS 1997
- Complex Dynamics: 25 years after the appearance of the Mandelbrot set, Eds. R. Devaney, L. Keen, Contemp. Math., 396, Amer. Math. Soc., Providence, RI, 2006.
- *Hyperbolic Geometry from a Local Viewpoint*, with N. Lakic, Cambridge Univ. Press, 2007
- Special Volume of Journal of Difference Equations and Applications in honor of Robert Devaney, Guest Editor, L. Keen, Vol.16, Issues 5-6, 2010
- Lipman Bers, a Life in Mathematics, A volume dedicated to Lipman Bers on the Occasion of his 100th Birthday, ed. L.Keen, I. Kra, R. Rodriguez, AMS, 2015.

Historical Articles

- On the Life and Work of Sonya Kowaleskaya, AWM Newsletter, March 1977. Reprinted in Complexities: Women in Mathematics, p.52-53, Eds. B.A. Case and A.M. Leggett, Princeton Univ. Press, 2005
- Lipman Bers: A Mathematical Mentor, AWM Newsletter, July 1984.
- Lipman Bers: 1907-1993, AWM Newsletter, May 1994.
- Reflections on AWM in the Mid-1990's, AWM Newsletter, Jan-Feb 2020.

Ph.D. STUDENTS

- M. Peter Hoefer A Numerical Approach to the Korteveg-DeVries Equation (1981)
- Wei Hua Jiang The Parameter Space of $\lambda \tan z$ (1991)
- Yung-yen Chiang Pleating Coordinates for the Teichmüller space of a five times punctured sphere (1995)
- Dragomir Saric Complex Earthquakes are holomorphic, (2001)
- Reza Chamanara Automorphism of flat structures in Teichmüller disks,(2002)
- Kourosh Tavakoli Limits of Iterated Function Systems, (2006)
- Shenglan Yuan From the Tangent to the Exponential, (2007)
- Ross Flek On the Dynamics of Quasi-Self-Matings of Generalized Star-like Quadratics (2009)
- Tao Chen (joint with Y. Jiang) Dynamics of Entire Functions (2013)
- Santanu Nandi Combinatorics of the Dynamical Plane of $\lambda \tan z^2$, (2019)