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Judith A. Packer

CONTACT INFORMATION:

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EDUCATION:

B.A.	summa cum laude, Wesleyan University,	1978
M.A.	Wesleyan University	1978
	Department of Mathematics,	
Ph.D.	Harvard University	1982
	Department of Mathematics,	

APPOINTMENTS:

Teaching Fellow	Harvard University	1979-81
Teaching Fellow	Harvard Summer School	1979, 1980, 1981
Lecturer & Senior Lecturer	National University of Singapore	1983-89
Asst. Professor	University of Colorado	1989-91
Assoc. Professor	University of Colorado	1991-92
Senior Lecturer	National University of Singapore	1992-97
Assoc. Professor,	National University of Singapore	1997-2000
Professor,	National University of Singapore	2000-2001
Professor,	University of Colorado	2002- present

RESEARCH INTERESTS:

Operator algebras, K-theory and cohomology and their relations to discrete groups and C^* -algebraic dynamical systems, and KMS states, spectral triples, the connection between operator algebras, abstract harmonic analysis, and wavelets.

RESEARCH FELLOWSHIPS:

Member, Mathematical Sciences Research Institute, Berkeley, California,
1982-83.

Visiting Fellow, University of New South Wales, Sydney, Australia,
November 1986.

Member, Institute for Advanced Study, Princeton, New Jersey, Spring 1987.

Visiting Fellow, Centre for Mathematical Analysis, Australian National
University, November 1987.

Japanese Society for the Promotion of Science Fellow, Kyushu University,
February 1996.

Visiting Principal Fellow, School of Mathematics and Applied Statistics,
University of Wollongong, Australia, July-August 2012.

HONORS AND AWARDS:

- Weller award (co-winner), for sophomores at Wesleyan University with highest grade point average, 1976.
 Phi Beta Kappa, Wesleyan University, elected 1977.
 Sigma Xi, Wesleyan University, elected 1978.
 Joseph L. Walsh Graduate Fellowship at Harvard University, 1978-79, 1979-80.
 James K. Whittemore Scholarship, Harvard University, 1980-81.
 National Science Foundation Mathematical Sciences Postdoctoral Research Fellowship, 1982-83, US \$26,000.
 2015 Ames Award (joint with S. Kang and A. Kumjian),
 awarded by Editorial Board of J. Math. Analysis and Applications,
 for best paper published in that journal in pure analysis in 2015.
 2019 Ames Award (joint with C. Farsi, E. Gillaspy, and S. Kang),
 awarded by Editorial Board of J. Math. Analysis and Applications,
 for best paper published in that journal in pure analysis in 2016–2018.

GRANTS:

- American Mathematical Society Travel Grant, for travel to Kyoto, Japan to attend ICM-90, \$1000.
 National Science Foundation Research Grant No. DMS-9003343, 1990-1992,
 “Twisted Crossed Product C^* -Algebras and C^* -Bundles”, \$40,620.
 Collaborator on NUS Grant “Algebraic Topology and K-theory”,
 with Principal Investigator Jon Berrick; 1998-2000.
 Collaborator on Grant from Singapore Ministry of Education,
 “Institute for Mathematical Sciences”, with Principal
 Investigators Louis Chen and Shui-Nee Chow; 2000–2004.
 Co-Principal Investigator on NUS Grant, “Functional Analysis, Harmonic
 Analysis, and Wavelets”, with Co-Principal Investigator Wai-Shing Tang;
 2000–2004.
 National Science Foundation Conference Grant No. DMS-0600718, 2006–2008,
 “Current Trends in Harmonic Analysis and Its Applications: Wavelets
 and Frames”, \$17,226.
 National Science Foundation Research Grant No. DMS-0701913, 2007-2012,
 “Wavelet frames, filters, and operator algebras”, \$129,527.
 National Science Foundation Special Meetings Grant No. DMS - 0852527,
 2009–2013, “GPOTS Special Meetings 2009/2010 - High-Altitude Training
 for the Next Generation of Operator Theorists and Operator Algebraists”
 (co-PI), \$64,533.
 University of Colorado System Diversity & Excellence Grant, 2013–2014,
 “Diversifying Math”, \$3000.
 Simons Foundation Collaboration Grant for Mathematicians No. 316981,
 2014–2022, “Self-similarity, Solenoids, and Groups of Baumslag-Solitar
 Type”, \$35,000.
 Simons Foundation Collaboration Grant for Mathematicians No. 854463,
 2021–2026, “The structure of C^* -algebras related to inverse semigroups
 and twisted groupoids”, \$42,000.

CONFERENCE PAPERS:

- American Mathematical Society Bryn Mawr meeting, special session speaker, March 1982.
- Mathematical Sciences Research Institute Operator Algebras Closing Workshop speaker, Berkeley, California, June 1985.
- 11th Conference on Operator Theory, I.N.C.R.E.S.T, Bucharest, Romania, June 1986.
- American Mathematical Society Phoenix meeting, special session speaker, January 1989.
- N.S.F.-C.B.M.S. Conference, "Coordinates in Operator Algebra," Fort Worth, Texas, contributed paper, May 1990.
- "Current Topics in Operator Algebra," Nara, Japan, contributed paper, August 1990.
- International Congress of Mathematicians, Kyoto, Japan, short communications speaker, August 1990.
- American Mathematical Society Springfield meeting, special session speaker, March 1992.
- American Mathematical Society San Antonio meeting, special session speaker, January 1993.
- Great Plains Operator Theory Symposium 1994, invited one-hour address, May 1994.
- American Mathematical Society Orlando meeting, special session speaker, January 1996.
- International Conference, "C*-algebra theory and its applications", Yamanaka-ko, Japan, contributed paper, February 1996.
- International Conference on Operator Algebras, Madras, India invited paper, January 1997.
- Conference on Harmonic Analysis and Group Representations, Oberwolfach, Germany, invited speaker, May 1997.
- Workshop on Wavelets and Applications, Singapore, invited speaker, May 2000.
- Conference on Harmonic Analysis and Group Representations, Oberwolfach, Germany, invited for July 2000.
- American Mathematical Society San Francisco meeting, special session speaker, October 2000.
- Mathematical Sciences Research Institute Quantization and Non-Commutative Geometry, Berkeley, California, invited speaker, April 2001.
- Conference on Operator Algebras and Applications, Oslo, Norway invited speaker, November 2001.
- Workshop on Wavelets and Frames, College Station, Texas, invited speaker, April 2002.
- American Mathematical Society Baltimore meeting, speaker in two special sessions, January 2003.
- American Mathematical Society Baton Rouge meeting, special session speaker, March 2003.
- American Mathematical Society Boulder meeting, special session speaker, October 2003.

- West Coast Operator Algebra Seminar, Banff, Canada
invited speaker, October 2003.
- Great Plains Operator Theory Symposium, College Station, Texas
invited speaker, May 2004.
- Workshop on group-theoretical methods, operator theory, and non-orthogonal
expansions, Vienna, Austria, invited speaker, April 2005.
- Great Plains Operator Theory Symposium, Orlando, Florida
contributed talk, June 2005.
- American Mathematical Society Eugene meeting, special session speaker,
November 2005.
- American Mathematical Society San Antonio meeting, special session speaker,
January 2006.
- Workshop on Operator methods in fractal analysis, wavelets and dynamical
systems, Banff, Canada, invited speaker, December 2006.
- American Mathematical Society New Orleans meeting, speaker in two special
sessions, January 2007.
- American Mathematical Society Tucson meeting, special session speaker,
April 2007.
- Great Plains Operator Theory Symposium, Lincoln, Nebraska
contributed talk, May 2007.
- American Mathematical Society Baton Rouge meeting, special session speaker,
March 2008.
- West Coast Operator Algebra Seminar, Flagstaff, Arizona
invited speaker, September 2008.
- American Mathematical Society Vancouver meeting, special session speaker,
October 2008.
- American Mathematical Society Urbana meeting, special session speaker,
March 2009.
- American Mathematical Society San Francisco meeting, special session speaker,
January 2010.
- American Mathematical Society St. Paul meeting, special session speaker,
April 2010.
- West Coast Operator Algebra Seminar, Pachuca, Mexico
invited speaker, September 2010.
- Workshop on Operator algebras and relationships to fractal analysis, wavelets
and frames, Banff, Canada, invited speaker, October 2010.
- American Mathematical Society New Orleans meeting, special session speaker,
January 2011.
- Conference on Wavelets, Frames, and Operator Algebras, Oberwolfach,
Germany, invited speaker, March 2011.
- Great Plains Operator Theory Symposium, Tempe, Arizona,
invited speaker, May 2011.
- International Workshop on Operator Theory and Applications, Seville, Spain,
contributed talk, July 2011.
- West Coast Operator Algebra Seminar, Albuquerque, New Mexico,
invited speaker, October 2011.
- International Workshop on Operator Theory and Applications, Sydney,
Australia, invited Thematic Session talk, July 2012.

Workshop on Operator Algebras and Time-Frequency Methods,
Vienna, Austria, invited speaker, November 2012.

American Mathematical Society Boulder meeting, special session speaker,
April 2013.

Great Plains Operator Theory Symposium, Berkeley, California,
invited speaker, May 2013.

Conference on Noncommutative Geometry and Quantum Groups,
Fields Institute, Canada, invited speaker, June 2013.

American Mathematical Society Baltimore meeting, special session speaker,
March 2014.

Fifth International Conference on Computational Harmonic Analysis, Nashville,
Tennessee, invited speaker, May 2014.

Great Plains Operator Theory Symposium, Manhattan, Kansas
contributed talk, May 2014.

American Mathematical Society San Antonio meeting, special session speaker,
January 2015.

2015 February Fourier Talks, Norbert Wiener Center, University of Maryland,
invited speaker, February 2015.

International Conference on Harmonic Analysis and Applications,
CUNY Graduate Center, invited speaker, June 2015.

NSF-CBMS Conference, University of Wyoming,
invited speaker, June 2015.

American Mathematical Society Memphis meeting, special session speaker,
October 2015.

Great Plains Operator Theory Symposium, Urbana, Illinois,
contributed talk, May 2016.

KOTAC International Conference, Seoul National University,
invited speaker, June 2016.

American Mathematical Society Denver meeting, special session speaker,
October 2016.

West Coast Operator Algebra Seminar, University of Wyoming, Laramie,
invited speaker, October 2016.

American Mathematical Society Atlanta meeting, special session speaker,
January 2017.

CRM Conference on C^* -algebras: Structure, Classification and Dynamics,
Barcelona, Spain, invited speaker, June 2017.

ICMS International Workshop on Applications of Operator Algebras: Order,
Disorder and Symmetry, Edinburgh, Scotland, invited speaker, June 2017.

American Mathematical Society Orlando meeting, special session speaker,
September 2017.

American Mathematical Society Portland meeting, special session speaker,
April 2018.

Great Plains Operator Theory Symposium, Oxford, Ohio,
invited speaker, May 2018.

American Mathematical Society San Francisco meeting, special session speaker,
October 2018.

Workshop on Women in Operator Algebras,
Banff, Canada, invited participant, November 2018.

Wabash MiniSymposium,
 Wabash College, invited speaker, February 2019.
 Workshop on New Geometry of Quantum Dynamics,
 Fields Institute, Canada, invited speaker, August 2019.
 American Mathematical Society Denver meeting, special session speaker,
 January 2020.
 Great Plains Operator Theory Symposium, Washington U. of St. Louis,
 contributed talk (via Zoom), May 2021.
 Canadian Mathematical Society Summer meeting, ,
 special session speaker (via Zoom), June 2021.
 American Mathematical Society Western Sectional meeting,
 special session speaker (via Zoom), October 2021.
 Workshop on Women in Operator Algebras 2,
 Banff, Canada, invited participant (via Zoom), December 2021.
 American Mathematical Society National meeting,
 special session speaker (via Zoom), April 2022.
 American Mathematical Society Joint Meetings, Boston,
 special session speaker, January 2023.

COLLOQUIA AND SEMINARS:

University of Rochester Math. Dept. Colloquium, 1982.
 University of Minnesota Math. Dept. Colloquium, 1982.
 University of California at Berkeley Functional Analysis Colloquium, 1983.
 UCLA Operator Algebras Colloquium, 1983.
 National University of Singapore Math. Dept. Colloquium, 1985.
 University of Vermont Math. Dept. Colloquium, 1986.
 University of New South Wales Math. Dept. Colloquium, 1986.
 MacQuarie University (Australia) Math Dept. Colloquium, 1986.
 Université de Montreal Topological Dynamics Seminar, 1987.
 SUNY at Stony Brook Operator Algebras Seminar, 1987.
 University of Pennsylvania Operator Algebras Seminar, 1987.
 University of Colorado Math. Dept. Colloquium, 1987.
 University of California at Berkeley Functional Analysis Colloquium, 1987.
 UCLA Operator Algebras Colloquium, 1987.
 Centre for Mathematical Analysis (Canberra, Australia) Colloquium, 1987.
 University of Adelaide Harmonic Analysis Seminar, 1987.
 Temple University Math. Dept. Colloquium, 1988.
 U.S. Naval Academy Math. Dept. Colloquium, 1988.
 Indiana University–Purdue University at Indianapolis Math. Dept.
 Colloquium, 1988.
 University of Colorado Math. Dept. Colloquium, 1988.
 University of California at Berkeley Functional Analysis Colloquium, 1988.
 National University of Singapore Topology Seminar, 1989.
 University of New South Wales Operator Algebras Seminar, 1989.
 University of Colorado “Slow Pitch” Colloquium, 1990.
 Colorado College Math. Dept. Colloquium, 1990.
 University of Colorado Math. Dept. Colloquium, 1990.
 National University of Singapore Algebra Seminar, 1992.

National University of Singapore Algebra Seminar, 1994.
 National University of Singapore Topology Seminar, 1995.
 National University of Singapore Algebra Seminar, 1995.
 University of Colorado Math. Dept. Colloquium, 1996.
 National University of Singapore Topology Seminar, 1996.
 University of Colorado Analysis Seminar, 1999.
 University of California at Berkeley Functional Analysis Colloquium, 1999.
 University of Colorado Wavelets Seminar, 1999.
 Dartmouth College Analysis Seminar, 1999.
 Wesleyan University Math. Dept. Colloquium, 1999.
 National University of Singapore Topology Seminar, 2000.
 University of Colorado Analysis Seminar, 2001.
 University of Colorado Analysis and Geometry Seminar, 2002.
 University of Colorado Wavelets Seminar, 2003.
 University of Iowa Math. Dept. Colloquium, 2004.
 University of Colorado Graph C^* -algebras Seminar, 2005.
 University of Colorado Kadison-Singer Problem Seminar, Fall 2006.
 University of Colorado Diff. Eq., Top and Geom. Seminar, Fall 2007.
 University of Oklahoma Math. Dept. Colloquium, Fall 2008.
 University of Colorado C^* -algebra Seminar, Fall 2009.
 Dartmouth College Math. Dept. Colloquium, Spring 2011.
 Arizona State University C^* -algebra Seminar, Spring 2012.
 University of Wollongong Operator algebras Seminar, August 2012.
 University of Colorado Analysis Seminar, Fall 2012.
 Norwegian University of Science and Technology Operator Algebras Seminar,
 June 2013.
 University of Oslo Department of Mathematics Colloquium, November 2013.
 University of Oslo Department of Mathematics Functional Analysis Seminar,
 November 2013.
 University of Colorado Fractals Seminar, Summer 2014.
 Norwegian University of Science and Technology Operator Algebras Seminar,
 September 2014.
 University of Colorado Groupoids and Analysis Seminar, Fall 2014,
 Spring 2015.
 Norwegian University of Science and Technology Operator Algebras Seminar,
 September 2015.
 University of Oslo Department of Mathematics Functional Analysis Seminar,
 October 2015.
 Seoul National University Department of Mathematics Colloquium,
 June 2016.
 Seoul National University Functional Analysis Seminar, June 2016.
 University of Colorado, Boulder, Math Club Talk, March 2017.
 University of Central Florida Department of Mathematics Colloquium,
 April 2017.
 University of Delaware Analysis and Inverse Problems Seminar,
 October 2017.
 Dalhousie University Department of Mathematics and Statistics Colloquium,
 January 2018.

University of Illinois Urbana–Champaign Functional Analysis Seminar,
February 2019.
University of Colorado, Boulder, Math Club Talk, October 2020.
United Kingdom Virtual Operator Algebras Seminar,
March 2021.
University of Victoria (Canada) Functional Analysis Seminar,
March 2022.
Discussant for University of Victoria Mathematics Diversity Committee,
March 2022.
University of Montana-Missoula Mathematics Colloquium
April 2022.
University of Oslo Functional Analysis Seminar,
May 2022.
University of Colorado, Boulder, Functional Analysis Seminar,
December 2022.

SPECIAL APPOINTMENTS:

Appointed panelist and reviewer for N.S.F. CAREER grant program,
and Harmonic Analysis and Linear PDE program, Arlington, VA, Fall,
2002 and Winter 2008.
Appointed Member of American Mathematical Society
Centennial Fellowship Selection Committee, 2008–2010.
Appointed Member of GPOTS Conference Scientific Committee, 2010–2013.
Appointed Member of three External Expert Hiring Committees,
NTNU University, Norway, 2010–2011, 2013, 2020.
Appointed Member of External Expert Hiring Committee,
University of Copenhagen, Denmark, 2020.
Appointed Member of External Review Committee,
Department of Mathematics, University of Oklahoma, Fall 2018.
Appointed Member of Mathematics and Statistics Evaluation Group,
Discovery Grants Program, NSERC, Canada, 2020-2022.

REVIEWING AND EDITING EXPERIENCE:

On the Editorial Board of Singapore Mathematical Medley, 1996–1999.
Assistant Editor, Singapore Mathematical Medley, 1998–1999.
Reviewer of book manuscript for World Scientific, 1998.
Co-editor for special issue of “Numerical Functional Analysis
and Optimization”, vol. 33 (2012), nos. 7-9.
Associate Editor, Rocky Mountain Journal of Mathematics, 2005– 2017.

REVIEWING AND EDITING EXPERIENCE (continued):

Referee of papers for *Mathematische Nachrichten*, *Illinois J. Math.*, *K-Theory*, *Journal of Operator Theory*, *Journal of Functional Analysis*, *Mathematische Zeitschrift*, *Math. Scand.*, *Trans. Amer. Math. Soc.*, *Proc. Amer. Math. Soc.*, *Proc. Edin. Math. Soc.*, *Houston J. Math*, *Indiana J. Math.*, *Acta. Appl. Math.*, *Contemporary Math.*, *J. Algebra*, *J. Fourier Analysis and Appl.*, *J. Math. Physics*, *J. Pure and Applied Algebra*, *Letters in Mathematical Physics*, *New York J. Math.*, *Reviews in Math. Physics*, *Statistics and Probability Letters*, *Operators and Matrices*, *SIGMA*, *Analysis and Mathematical Physics*, *J. Math. Anal. and Appl.*, *Journal of Non-commutative Differential Geometry*, *J. Australian Math. Soc.*, *Springer Lecture Notes in Mathematics*, *Comptes Rendus Mathématique*, *International J. of Math.*, *Banach J. Math. Analysis*, *Advances in Mathematics*, 1994–2023.

Reviewer, *Mathematical Reviews*, 1987– present.

Book Reviewer, *SIAM Review*, 2003–2004.

Reviewer, N.S.F. proposals, 1987-89, 1991-95, 2002-2003, 2006–2009.

Reviewer, grant proposal from Netherlands Organization for Scientific Research, 2005.

External examiner, Ph.D. thesis, U of Adelaide, Australia, 2008.

Reviewer, grant proposal from NSERC Canada, 2008–2009.

External examiner, Ph.D. thesis, NTNU University, Trondheim, Norway, 2013.

External examiner, Ph.D. thesis, University of Wollongong, Australia, 2014.

External examiner, Ph.D. thesis, NTNU University, Trondheim, Norway, 2014.

Reviewer of grant proposal for Banff Internal Research Station, PIMS, 2016–2017, 2022–2023, and for Fields Institute, 2017.

Reviewer of grant proposal for Israel Science Foundation 2021.

Reviewer of grant proposal for Marsden Fund, Royal Society of NZ, 2021.

External examiner, Ph.D. thesis, Institute of Mathematical Sciences, Chennai, India, 2014.

External examiner, Ph.D. theses, University of New Mexico, 2016, University of Denver, 2017, Victoria University, Victoria, Canada, 2020.

ADMINISTRATIVE EXPERIENCE AND SERVICE:

Analysis Curriculum Advisory Committee, National University of Singapore, 1984-85.

Analysis Conference Organizing Committee, Assistant Secretary, National University of Singapore, 1985-86.

Colloquium Chair, CU Boulder, 1990-1991.

Graduate Committee, Department of Mathematics, CU Boulder, 1991–92.

Ethics Committee, College of Arts and Sciences, CU Boulder, 1991–92.

Ad-hoc Analysis Curriculum Reorganization Advisory Committee, National University of Singapore, 1993.

Advisor to Foreign Math. Majors, NUS, 1995–96.

Member, NUS Departmental Science Foundation Module Committee, 1995–1998, Chairman: 1996-1998.

ADMINISTRATIVE EXPERIENCE AND SERVICE (continued):

- Member, NUS Departmental Student Advice Committee, 1996–1998.
- Advisor for Majors applying to NUS Student Exchange Programme, 1996–1998.
- Member, NUS Departmental Curriculum Committee, 1996–1998.
- Member, NUS Departmental Curriculum Reform Subcommittee,
January–April 1998.
- Member, NUS Departmental Search Committee, 1998–2000.
- Departmental Representative, NUS Faculty Science Foundation Module
Committee, 1996–97.
- Departmental Representative, NUS Faculty Modular System Committee,
1996–97.
- Departmental Representative, NUS Faculty Student Exchange Programme
Committee, 1997–1998.
- Alternate Departmental Representative, NUS Faculty Modular Structure
Committee, 1997–1998.
- Member and Chair, NUS Departmental Strategic Planning Committee,
2000–2001.
- Head, Analysis Division, NUS Mathematics Department,
March 1998–June 2000.
- Deputy Head for Research, NUS Mathematics Department,
July 2000–Dec. 2001.
- Member, Hiring Committees for Analysis, Algebra, Number Theory, Topology,
Probability, Functional Analysis, CU Boulder, 2001–09, 2013–14, 2016–17,
2022–2023.
- Member, Analysis Prelim Committee, CU Boulder Mathematics Department,
numerous times 1989–1992, 2002–2022.
- Member, Executive Committee, CU Boulder Mathematics Department,
July 2002 –June 2004, July 2005 – June 2007, July 2009 –June 2013.
July 2016 –June 2018.
- Member, Graduate Committee, Department of Mathematics, CU Boulder,
August 2005 – June 2008; chair, August 2006 – June 2008.
- Library Liaison, CU Boulder Mathematics Department,
October 2002 – November 2006.
- Associate Chair for Graduate Studies, Department of Mathematics,
CU Boulder, August 2006 – June 2008.
- Co-organizer, Special Session on Groupoids in Analysis and Geometry,
Sectional Meeting of the A.M.S, Boulder, Colorado, October 2003.
- Co-organizer, Groupoidfest Conference, Boulder, Colorado, October 2–4, 2003.
- Member, Organizing Committee, Workshop on Functional and Harmonic
Analysis of Wavelets and Frames, Singapore, August 4–7, 2004.
- Co-organizer, Workshop on Current Trends In Harmonic Analysis:
Wavelets and Frames, Boulder, Colorado, May 18–20, 2006.
- Co-organizer, Special Session on Wavelet Sets and Tilings of \mathbb{R}^n , National
Meeting of the A.M.S, San Diego, California, January 2008.
- Co-organizer, 29th Annual Great Plains Operator Theory Symposium,
Boulder, Colorado, June 2–6, 2009.
- Co-organizer, Special Session on Analysis of Wavelets, Frames, and Fractals,
Sectional Meeting of the A.M.S, Washington, D.C., April 2012.

ADMINISTRATIVE EXPERIENCE AND SERVICE (continued):

- Member, Transportation Task Force of Campus Master Plan Committee,
CU Boulder, 2009 – 2010.
- Member, Committee on Research and Creative Work,
CU Boulder, 2009 – 2010.
- Chair for Department of Mathematics' Self-study/ARPAC Committee,
CU Boulder, 2009 – 2010.
- Chair, Department of Mathematics, CU Boulder, July 2010 – June 2013.
- Member, BFA Administrator Appraisal Committee for Deans of Faculties,
University of Colorado, Fall 2011– Fall 2014.
- Chair of Local Organizing Committee, Western Sectional Meeting of
the American Mathematical Society, Boulder, Colorado, April 2013.
- Co-organizer, Diversity Workshop, "Diversifying Math",
CU Boulder Department of Mathematics, March 16–18, 2014.
- Co-organizer, Groupoidfest Conference, Boulder, Colorado,
November 15–16, 2014.
- Chair of Department of Mathematics' Diversity Committee,
CU Boulder, August 2013 – May 2015; Member Aug. 2016 – Fall 2017,
Chair, Fall 2018-Spring 2019.
- Member, BFA Faculty Affairs Committee,
University of Colorado, Fall 2014– Spring 2018.
- Mentor, National Alliance for Doctoral Studies
in the Mathematical Sciences, since 2014.
- Member, Department of Mathematics Awards Committee,
University of Colorado, Fall 2015– Spring 2018.
- Member, Department of Mathematics Graduate Committee,
University of Colorado, Spring 2017– Spring 2019.
- Member, Campus-wide Academic Review and Planning Committee (ARPAC),
University of Colorado, Boulder, Fall 2019– Fall 2021.
- Senior Mentor, OA (Operator Algebra) Mentor Network since February 2020;
Assisted in the development of Network bylaws, Summer 2020.

MENTORING OF STUDENTS AND POSTDOCS:

- Supervised 6 B.Sc. Honours Projects at NUS.
- Supervised one undergraduate UROP student at University Colorado, Boulder.
- Supervised 13 M.A. degrees at University of Colorado, Boulder.
- Supervised 3 M.Sc. students at NUS.
- Supervised 8 Ph.D. degrees (A. Chambers, J. D'Andrea, S. Kang,
B. Purkis, T. Davison, I. Long , N. Davidoff and S. Lu), at University of
Colorado, Boulder.
- Co-mentored Meyer postdoctoral instructors E. Gillaspay (2014–2016)
and L. Huang (2016–2018) at University of Colorado, Boulder.

EDITED BOOKS:

1. (Co-Editor, with S.T.L. Choy and P.Y. Lee), *Proceedings of the Analysis Conference, Singapore 1986*, North Holland Mathematical Studies, v. 150, North Holland Publishing Co., 1988.
2. (Co-Editor, with L.H.Y. Chen, C.H. Lai, C.H. Oh, K.K. Phua, E.C. Tan), *Proceedings of the International Conference on Fundamental Sciences, Mathematics and Theoretical Physics, Singapore 2000*, World Scientific Publishing Co., 2001.
3. (Co-Editor, with P.E.T. Jorgensen and K.D. Merrill), *Representations, Wavelets, and Frames: A Celebration of the Mathematical Work of Lawrence Baggett*, Boston: Birkhäuser Publishing Co., 2008.

PUBLICATIONS AND RESEARCH PAPERS:

- [1] *On the normalizer of certain subalgebras of group-measure factors*, Bull. Amer. Math. Soc. **7** (1982), 397–402.
- [2] *Point spectrum of ergodic abelian group actions and the corresponding von Neumann algebras*, Pacific J. of Math. **119** (1985), 381–406.
- [3] *On the embedding of subfactors corresponding to quotient actions in group-measure factors*, Pacific J. of Math. **119** (1985), 407–443.
- [4] *K-theoretic invariants for C^* -algebras associated to transformations and induced flows*, J. of Functional Analysis **67** (1986), 25–59.
- [5] *C^* -algebras generated by projective representations of the discrete Heisenberg group*, J. of Operator Theory **18** (1987), 42–66.
- [6] *Flow equivalence for dynamical systems and the corresponding C^* -algebras*, in Special Classes of Linear Operators and Other Topics, Proceedings of the 11th International Conference on Operator Theory, Bucharest, Romania, June 2-12, 1986, Birkhauser Verlag, 1988, pp. 223–242.
- [7] *Strong Morita equivalence for Heisenberg C^* -algebras and the positive cone of their K_0 -groups*, Canadian J. of Math., **40** (4) (1988), 833–864.
- [8] *Twisted group C^* -algebras corresponding to nilpotent discrete groups*, Math. Scandinavica, **64** (1) (1989), 109–122.
- [9] *Twisted crossed products of C^* -algebras* (with Iain Raeburn), Math. Proc. Cambridge Phil. Soc. **106**, Part 2 (1989), 293–311.
- [10] *Twisted crossed products of C^* -algebras II* (with Iain Raeburn), Mathematische Annalen **287** (4) (1990), 595–612.
- [11] *C^* -algebras associated to two-step nilpotent groups* (with Lawrence Baggett), Contemporary Mathematics **120**, *Selfadjoint and Nonselfadjoint Operator Algebras and Operator Theory*, (Robert S. Doran, ed.), American Mathematical Society, 1991, pp. 1–6.
- [12] *On the structure of twisted group C^* -algebras* (with Iain Raeburn), Trans. Amer. Math. Soc. **334** (1992), 685–718.
- [13] *The primitive ideal space of two-step nilpotent group C^* -algebras* (with Lawrence Baggett), J. of Functional Analysis **124** (1994), 389–426.
- [14] *Transformation group C^* -algebras: A selective survey*, Contemporary Mathematics **167**, *C^* -Algebras 1943-1993: A Fifty Year Celebration*, (Robert S. Doran, ed.), American Mathematical Society, 1994, pp. 183–217.
- [15] *Twisted group C^* -algebras for two-step nilpotent and generalized discrete Heisenberg groups* (with Soo Teck Lee), J. of Operator Theory, **34** (1995), 91–124.
- [16] *Moore cohomology and central twisted crossed product C^* -algebras*, Canadian J. of Math. **48** (1) (1996), 159–174.

- [17] *Crossed product C^* -algebras and algebraic topology*, Reviews in Math. Phys. **8** (4) (1996), 623-637.
- [18] *The equivariant Brauer group of principal bundles* (with Iain Raeburn and Dana Williams), J. of Operator Theory **36** (1996), 73-105.
- [19] *The cohomology of the integer Heisenberg group* (with Soo Teck Lee), J. of Algebra **184** (1996), 230-250.
- [20] *C^* -algebras associated to lattices in Heisenberg Lie groups* (with Soo Teck Lee), J. of Operator Theory **41** (1999), 291-319.
- [21] *K -theory for the integer Heisenberg group*, (with Helmer Aslaksen and Soo Teck Lee), K-Theory **16** (1999), 201-227.
- [22] *The equivariant Brauer group and twisted transformation group C^* -algebras*, Illinois J. of Math. **43** (1999), 707-732.
- [23] *A direct integral decomposition of the wavelet representation* (with Lek-Heng Lim and Keith F. Taylor), Proc. Amer. Math. Soc., **129** (2001), 3057-3067.
- [24] *Wavelet filter functions, projective modules, and the matrix completion problem* (with Marc Rieffel), J. Four. Anal. Appl. **9** (2003), 125-140.
- [25] *An analogue of Bratteli-Jorgensen loop group actions for GMRA's* (with L. Baggett, P. Jorgensen, and K. Merrill), Contemporary Mathematics **345**, *Wavelets, Frames and Operator Theory*, (Chris Heil, Palle Jorgensen, and Dave Larson, eds.), American Mathematical Society, 2004, pp. 11-25.
- [26] *Projective multiresolution analyses for $L^2(\mathbb{R}^2)$* (with Marc Rieffel), J. Four. Anal. Appl. **10** (2004), 439-464.
- [27] *Review of "Wavelets Through a Looking Glass" by P. Jorgensen and O. Bratteli*, SIAM Review **46** (2004), 368-372.
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