Andrzej Piotrowski, Ph. D.

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Education:

2002-2007	Graduate Student in Mathematics, University of Hawaii at Manoa Ph.D. in Mathematics Awarded in 2007 Dissertation Title: *Linear Operators and the Distribution of Zeros of Entire Functions* Dissertation Adviser: Dr. George Csordas
2000-2002	Graduate Student in Mathematics, University of New Hampshire M.S. in Mathematics awarded in 2002
1996-2000	Undergraduate Student in Mathematics, University of New Hampshire B.S. in Mathematics awarded in 2000

Academic Positions Held:

Summer 2019 – Present Day	Professor of Mathematics and Chair of the Department of Natural Sciences, University of Alaska Southeast
Summer 2013 – Summer 2019	Associate Professor of Mathematics, University of Alaska Southeast
Fall 2016	Lecturer, California State University, Fresno (Sabbatical Activity)
Fall 2008 - Summer 2013	Assistant Professor of Mathematics, University of Alaska Southeast
Fall 2007 - Spring 2008	Assistant Professor of Mathematics, California State University, Fresno
Fall 2002 - Spring 2007	Graduate Teaching Assistant, University of Hawaii at Manoa
Fall 2006	Lecturer, Kapiolani Community College, Holomua Department
Summers 2003 - 2005	Mathematics Instructor, University of Hawaii, Outreach College
Spring 2002	Mathematics Instructor, University of New Hampshire
Fall 2000 - Fall 2001	Graduate Teaching Assistant, University of New Hampshire
Spring 2000	Undergraduate Teaching Assistant, University of New Hampshire

Courses Taught:

Introduction to Logic, Survey of Mathematics, Finite Mathematics, Concepts and Contemporary Applications of Mathematics, Elementary Algebra, Intermediate Algebra, College Algebra, Trigonometry, Precalculus, Calculus for Life Sciences Recitation, Calculus I, Calculus II, Calculus III, Calculus Computer Lab, Advanced Calculus, Mathematical Analysis, Differential Equations, Linear Algebra, Complex Variables, Applied Complex Analysis, Elementary Statistics, Probability and Statistics, Junior/Senior Seminar, Perspectives in Analysis, Introduction to Mathematical Proofs

Publications: (*denotes undergraduate co-author)

1. A. Piotrowski, Atypical series representations of Riemann-integrable functions, *College Math. J.*, **52** Issue 1 (2021), pp. 31-38, DOI: 10.1080/07468342.2021.1847589
2. D. Cardon, T. Forgács, A. Piotrowski, E. Sorensen*, and J. White*, On zero-sector reducing operators, *J. Math. Anal. Appl.,* **468** Issue 1 (2018), pp. 480-490, DOI: *10.1016/j.jmaa.2018.08.025*
3. M. Chasse, T. Forgács, and A. Piotrowski, Polynomially interpolated Legendre multiplier sequences, *Comput. Methods and Funct. Theory*, **18** Issue 2 (2018), pp. 315-333, DOI: 10.1007/s40315-017-0221-3
4. A. Piotrowski, Proof without words: On sums of squares and triangles, *Math. Mag.* **91** Issue 1 (2018), p. 42, DOI: 10.1080/0025570X.2018.1404885.
5. T. Forgács and A. Piotrowski, On Hermite multiplier sequences and their associated operators, *Constr. Approx*. **42** Issue 3 (2015), pp. 459-479, DOI: 10.1007/s00365-015-9277-3.
6. A. Bunton*, N. Jacobs*, S. Jenkins*, C. McKenry Jr.*, A. Piotrowski, and L. Scott*, Non-real zero decreasing operators related to orthogonal polynomials, *Involve* **8** No. 1 (2015), pp. 129-146, DOI: 10.2140/involve.2015.8.129
7. T. Forgács and A. Piotrowski, Multiplier sequences for generalized Laguerre bases, *Rocky Mountain J. Math.* **43** No. 4 (2013), pp. 1141-1159, DOI: 10.1216/RMJ-2013-43-4-1141

Professional Talks:

1. May 2018, Workshop on Hausdorff Geometry of Polynomials and Polynomial Sequences at the Mittag-Leffler Institute, *Non-Real Zero Decreasing Operators Related to Orthogonal Polynomials*
2. January 2018, Joint Mathematics Meetings of AMS and MAA, AMS Contributed Paper Session on Orthogonal Polynomials and Complex Function Theory, *Polynomially Interpolated Legendre Multiplier Sequences*
3. February 2017, UAS Math Club and Pi Mu Epsilon, *The Riemann Zeta Function*
4. November 2016, CSU Fresno Department of Mathematics Day, Ignite Talks, *Proof Without Words*
5. October 2016, CSU Fresno Zerotorics Seminar, *Birkhoff's Theorem for Doubly Stochastic Matrices*
6. September 2016, CSU Fresno Zerotorics Seminar, *Rado's Theorem on Subrelations*
7. September 2016, CSU Fresno Graduate and Undergraduate Student Seminar, *Long Division Like You've Never Seen Before*
8. February 2016, UAS Math Club and Pi Mu Epsilon, *How John Wallis Made His (half) Pi* (with A. Steihr)
9. January 2016, Joint Mathematics Meetings of AMS and MAA, AMS Special Session on Distribution of Zeros of Entire Functions, *Multiplier Sequences for the Legendre Polynomial Basis*
10. October 2015 & February 2018, UAS Math Club and Pi Mu Epsilon, *Long Division Like You've Never Seen Before*
11. August 2014, MAA Mathfest, Themed Contributed Paper Session on Open and Accessible Problems in Real or Complex Analysis, *Linear Operators, Zeros of Polynomials, and Orthogonal Polynomials*

12. December 2013, Seminar on Complex Function Theory, University of Hawaii, *Complex Zero Decreasing Operators*
13. June 2013, Research Talk Session of the National Research Experience for Undergraduates Program at UAS, *Introduction to Diagonalizable Linear Operators and Polynomial Zeros*
14. January 2012, Joint Mathematics Meetings of AMS and MAA, AMS Session on Real and Complex Analysis, *Polynomial Coefficients of Linear Operators which are Diagonal with respect to the Hermite Basis*.
15. June 2011, Pacific Northwest Section Meeting of the MAA, Session on Junior Faculty Research, *Multiplier Sequences*
16. March 2010, Seminar on Complex Function Theory, University of Hawaii, *Multiplier Sequences for Generalized Laguerre Bases*
17. January 2010, Joint Mathematics Meetings of AMS and MAA, MAA Session on General Contributed Papers, *Linear Operators and Zeros of Polynomials*
18. October 2009, Alaska Math and Science Conference, *The Amazing Shifting Theorem* (with J. Dumesnil)
19. January 2009, Joint Mathematics Meetings of AMS and MAA, AMS Special Session on Complex Dynamics and Complex Function Theory, *Multiplier Sequences for Generalized Laguerre Bases*
20. October 2008, UAS Math Club, *Much Ado About Nothing*.
21. April 2008, California State University Fresno, *Laguerre Multiplier Sequences: Towards a Classification Theorem* (with T. Forgács)
22. January 2008, Joint Mathematics Meetings of AMS and MAA, AMS Session on Analysis and Ordinary Differential Equations II, *Distribution of Polynomial Zeros*
23. September 2007, California State University Fresno Mathematics Seminar, *Easy to State and Difficult to Solve* (part I)
24. September 2007, California State University Fresno Mathematics Seminar, *Easy to State and Difficult to Solve* (part II)
25. March 2007, California State University Fresno Department of Mathematics, *Q-Multiplier Sequences*
26. February 2007, University of Hawaii at Hilo Department of Mathematics, *Zeros of Polynomials and Multiplier Sequences*
27. Fall 2006, University of Hawaii at Manoa Undergraduate Mathematics Seminar, *Zeros of Polynomials and Multiplier Sequences*
28. Spring 2006, University of Hawaii at Manoa Undergraduate Mathematics Seminar, *On the Zeros of a Function and its Derivative*
29. January 2006, Joint Mathematics Meetings of AMS and MAA, AMS Special Session on Value Distribution in Classical and p-adic Functions Theory, *Hermite Multiplier Sequences*
30. Fall 2005, University of Hawaii at Manoa Undergraduate Mathematics Seminar, *A Generalization of a Theorem due to Laguerre*

Professional Workshops:

1. iTEACH Workshop, University of Alaska Southeast (August 2020)

2. Invited participant for a workshop on Hausdorff Geometry of Polynomials and Polynomial Sequences at the Mittag-Leffler Institute in Stockholm, Sweden (May 2018)
3. University of Alaska Developmental Mathematics Summit (May 2018)
4. Invited participant for an Analysis Research Group at Brigham Young University (Summer 2017, Summer 2019)
5. Participant in the Workshop on Mentoring Math Majors at California State University, Northridge (2016)
6. Participant in the AAC&U Institute on General Education and Assessment (2012)
7. Invited participant for the American Institute of Mathematics Workshop on Pólya-Schur-Lax Problems: Hyperbolicity and Stability Preservers (2007)

Research with Students:

1. UAS mathematics program undergraduate capstone mentor to 14 students. Research topics have included: the distribution of zeros of polynomials, partial differential equations, applications of residues, inverse function theory, topology, digital topology, Riemann surfaces, the mathematics of music, measuring astronomical distances, the Dirac delta function, and the Fourier transform (Spring 2009 – Present Day)
2. Faculty/student analysis research group at Brigham Young University (Summer 2017)
3. Principal Investigator and Program Director for the MAA *National Research Experience for Undergraduates Program at UAS: Diagonalizable Operators and Polynomial Zeros* (2013)
4. CSU Fresno, Mentor to one graduate student who studied the distribution of zeros of entire functions (Fall 2007 - Spring 2008)

Grants and Awards:

1. EPSCoR Rolling Travel Award (2021)
2. MAA National Research Experience for Undergraduates Program Grant (2013)
3. Outstanding Teacher Award, CSU Fresno Math Club (AY 2007 - 2008)
4. Performance Award, CSU Fresno College of Science and Mathematics (Fall 2007)
5. Graduate Division Award for Excellence as a Teaching Assistant, University of Hawaii (UH) Graduate Division (2006)
6. Dai Ho Chun Travel Fellowship, University of Hawaii Foundation (2006)
7. Graduate Excellence in Teaching Award, UH Department of Mathematics (2004)

Computer Proficiencies:

Proficient in the use of the mathematical software packages *Derive*, *Desmos*, *Geometer's Sketchpad, Maple*, *Mathematica*, and *LaTeX*. Elementary knowledge of HTML.

Community Outreach and Other Professional Service:

1. Faculty Mentor with the *Math Alliance: The National Alliance for Doctoral Studies in the Mathematical Sciences* (Spring 2017 – Present Day)

2. University Service, including course coordination, advising, peer evaluation committees, search committees, MAA Putnam competition coordinator at UAS, UAS math club adviser and *Pi Mu Epsilon* chapter adviser (Fall 2007 – Present Day)
3. Co-organizer and proposal writer for the AMS Special Session on Distribution of Zeros of Entire Functions at the Joint Mathematics Meetings (JMM) of the AMS and MAA (2016)
4. Competition Judge:
    - Northwest Undergraduate Mathematics Symposium (2015)
    - Undergraduate Paper Session at the MAA MathFest (2014, 2021)
    - Undergraduate Student Poster Session at the JMM (2013, 2016)
    - 55th Annual Central California Science, Mathematics and Engineering Fair (2008)
    - CSU Fresno Math Department Integration Bee (2008)
    - Hanahauoli School Science Fair (2005, 2006)
5. Participant, AK State Department of Ed. and Early Development K-12 standards workshop (2014)
6. Referee for Peer-Reviewed Journals:
    - *Complex Analysis and its Synergies*
    - *Complex Variables and Elliptic Equations*
    - *Computational Methods and Function Theory*
    - *Involve*
    - *Journal of Difference Equations and Applications*
    - *Publicationes Mathematicae Debrecen*
    - *PUMP Journal of Undergraduate Research*
    - *Revista Matemática Complutense*
7. MAA Pacific Northwest Section Meeting Local Arrangements Committee (2011)
8. Community Volunteer Work
    - Coach for *Enigma*, the Juneau area high schools math club (2021 – Present Day)
    - Calculus camp for Juneau area high schools (2009 – Present Day)
    - Guest on *A Juneau Afternoon* radio show (with Dr. Megan Buzby, Spring 2018)
    - Juneau STEM Family Night Activity Leader (2018, 2019, 2020)
    - STEM contact for the Juneau STEM Coalition (2017 – Present Day)
    - CSU Fresno Department of Mathematics Day (2016)
    - Kids2College event at UAS (2013, 2018)
    - Great Alaska Games event at the Alaska State Museum (2011)
    - CSU Fresno Math Field Day (2008)
    - Punahou High School Astronaut Lacy Veach Day of Discovery (2006)

Professional Memberships:

1. American Mathematical Society (2002 - 2008 and 2015 – Present Day)
2. Mathematical Association of America (2008 – Present Day)
3. Pi Mu Epsilon (2014 – Present Day)