

## KENDRA KILLPATRICK

Frank R. Seaver Professor of Natural Science  
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Objective: To obtain a senior leadership position in higher education administration. I have a passion for community building, faculty and staff development, DEI initiatives, student success, data-based decision making and the implementation of broad and innovative strategic programs that result in meaningful change.

## EXPERIENCE

### AUGUST 2018 - PRESENT

#### SENIOR ASSOCIATE DEAN, PEPPERDINE UNIVERSITY, SEAVER COLLEGE

- Oversees faculty in regards to maintaining the faculty handbook, managing faculty workloads, addressing course scheduling issues, allocating office space, hiring adjunct faculty and serving as point person for faculty policies and procedures.
- Interviews all potential faculty and reads all Rank, Tenure and Promotion files for tenure/tenure track faculty.
- Responsible for the implementation of the EAB Navigate platform and mobile app with the goal of improved student retention and graduation rates.
- Oversees the promotion process for all fixed term faculty in the College.
- Manages 8 Divisional Deans for 8 academic divisions in the College.
- Supervises summer school.
- Oversees the non-academic grievance policy (i.e. serves as lead investigator for all non-academic grievances).
- Serves as academic liaison to the Title IX office and the Office of Student Accessibility.
- Manages academic space and oversees schedule building.
- Supervises 12 direct reports.
- Serves as co-chair of the Seaver AI Task Force and a member of the University AI Oversight committee.

### JANUARY 2016 – JULY 2018

#### ASSOCIATE DEAN, PEPPERDINE UNIVERSITY, SEAVER COLLEGE

- Responsible for ongoing faculty support and development.
- Manages new faculty mentoring programs for both tenure/tenure track faculty and visiting faculty.
- Oversees student success and development programs, particularly initiatives of the Student Success Center.
- Supervises the Director of the Center for Teaching Excellence and the Director of Student Success.
- Responsible for diversity, equity and inclusion initiatives for the College.

- Serves as the point person for technology initiatives in the College.
- Manages the annual classroom R and R process for the college.
- Jointly supervises the Digital Content Manager for Seaver College.
- Oversees Academic Integrity appeals process.

**AUGUST 2002 - CURRENT**

**PROFESSOR OF MATHEMATICS**, PEPPERDINE UNIVERSITY, SEAVER COLLEGE

- Frank R. Seaver Professor of Mathematics, 2016-2021: The Frank R. Seaver Endowed Professorship is a 5-year appointment awarded to a faculty member in the Natural Sciences with a proven record of outstanding teaching and scholarship.

Courses taught:

- Math 120 – Nature of Mathematics
- Math 140 – Calculus for Business
- Math 150 – Calculus 1
- Math 151 – Calculus 2
- Math 250 – Multivariable Calculus
- Math 260 – Linear Algebra
- Math 270 – Mathematics for Elementary Teachers
- Math 320 – Transition to Abstract Mathematics
- Math 335 – Combinatorics
- Math 380 – Algebraic Structures I
- Math 420 – Mathematics for Secondary Teachers
- Math 480 – Algebraic Structures II

**AUGUST 1999 – JULY 2002**

**VISITING PROFESSOR OF MATHEMATICS**, COLORADO STATE UNIVERSITY, FORT COLLINS, CO

**JANUARY 1999 – MAY 1999**

**VISITING PROFESSOR OF MATHEMATICS**, ST. OLAF COLLEGE, NORTHFIELD, MN

**EDUCATION**

**DECEMBER 1998**

**PH.D. IN MATHEMATICS**, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MN

- Major Area: Combinatorics
- GPA: 3.77

**JULY 1997**

**M.S. IN MATHEMATICS**, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MN

- Major Area: Combinatorics

JUNE 1993

**B.S. IN MATHEMATICS AND BIOLOGICAL SCIENCES**, STANFORD UNIVERSITY

- Degree conferred with Distinction, an honor awarded to the top 10% of students in each major.

## AWARDS

- **2022 Technology Pioneer Award from EAB**, accepted on behalf of Pepperdine University and the Seaver College EAB leadership team.
- **Howard A. White Teaching Award**, Pepperdine University, 2005.
- **Graduate Professor of the Year**, Mathematics Department, Colorado State University, 2001
- **“Programs That Make a Difference”** award for the Pacific Coast Undergraduate Mathematics Conference (I served as co-founder and co-organizer, 2006-2015), American Mathematical Society, 2015.

## ADDITIONAL LEADERSHIP DEVELOPMENT

HERS Leadership Institute participant, July 2024.

- According to the HERS (Higher Education Resource Symposium) website, the HERS Leadership Institute is “a transformational, leadership development program for higher education professionals, founded to fill leadership pipelines across the United States with dynamic leaders, each capable of ushering their respective institutions into a more inclusive and equitable future.”

WSCUC (Accrediting body) Steering Committee for the University, 2018-2022.

- Serving as one of 10 members of the Steering Committee, preparing the report for our next accreditation visit in 2021. I am co-chairing the review of two of the standards and am writing the report for those standards.

Seaver College Strategic Planning Core Team member, 2020-2022.

- Seaver College is in the process of writing a new strategic plan to provide a vision for the College for the next 10 year period. The Core Team consists of 10 members who hold senior leadership positions in the College.

Inaugural Chair, Committee on Women Faculty, 2013-2016.

- Organized first Female Faculty Mentoring Program, 2015-2016.
- Founded the Award for Excellence in Leadership, given annually to a woman who has demonstrated excellence in leadership at Pepperdine University.

- Developed the Dependent Care Travel Grant program, funded by the Provost's office to support the dependent care expenses incurred by faculty traveling to professional conferences and workshops.
- Organized the Female Faculty Research Retreat, a 3-day research retreat that occurs annually in May.

Inaugural Faculty Director, Regents' Scholars Program, 2006-2016.

- The Regents' Scholars Program is a program of both curricular and co-curricular events for students receiving the highest academic scholarships at Pepperdine. Approximately 75 new freshmen Scholars join the program each year.

Core Leadership Team, Center for Women in Leadership, 2015-2018.

- The Core Leadership team helped develop and oversee the strategic initiatives and budget plan for the new Center for Women in Leadership at Pepperdine.

## **Professional Leadership:**

Education Advisory Board (EAB) Rising Higher Education Leaders Fellowship, 2020-2021.

- Inaugural member of this fellowship program. The program goals are to support the professional development of the fellows, create a unique community of practice amongst the members, and support a participant led capstone research project at the home institution.

Educational Advisory Board (EAB) Innovation Council Member, 2019-2020.

- Invited member of the Innovation Council. I participated in monthly meetings and webinars with EAB senior leadership to advise on topics related to student success and the Navigate platform.

North America Associate Director, Budapest Semesters in Mathematics Program, 2011-2018.

- The Budapest Semesters in Mathematics program is a prestigious international program in Budapest, Hungary that is open to junior and senior math majors at undergraduate institutions anywhere in the United States. As the Associate Director, I worked closely with the Director to read all applications, create and update promotional materials, attend conferences to recruit highly talented undergraduate math majors, and make curriculum and long term planning decisions. In addition, I managed the alumni relations portion of the program which included building an alumni database (none existed prior to my role), writing an alumni newsletter, contacting alumni to assist in promoting the program to current undergraduates and building community among alumni and current students.

Co-Organizer, Pacific Coast Undergraduate Mathematics Conference, 2006-2015.

- I helped co-found and co-organize an annual conference for undergraduate mathematics majors in Southern California. We organized the conference for ten years and saw our attendance grow from 80 to roughly 650 participants, making it the largest undergraduate math conference in the United States. The conference was supported by grant funding from the National Science Foundation (through the Mathematical Association of America) and from the National Security Agency.

National Councillor (sic), Pi Mu Epsilon national mathematics honor society, 2008-2011.

- I served a three year term as one of 4 National Councillors for the honor society. Together with 6 other national officers, we formed the 10 member group that runs all national business for the honor society.

## RESEARCH

### Papers:

- Garrett, K. and Killpatrick, K., "A Combinatorial Proof of a Formula for the Lucas-Narayana Polynomials", *Discrete Mathematics*, Volume 345, Issue 12 (December 2022).
- Killpatrick, K. and Weaver, J., "A Bijection for the Fibonomial Coefficients", *Fibonacci Quarterly*, Volume 59, No. 1, 14-18, (2021).
- Cameron, N. and Killpatrick, K., "Statistics on Linear Chord Diagrams", *Discrete Mathematics and Theoretical Computer Science*, Volume 21, No. 2, #11 (2019).
- Cameron, N. and Killpatrick, K., "Inversion Generating Functions for Signed Pattern Avoiding Permutations", *Electronic Journal of Combinatorics*, Volume 24, Issue 1 (2017), P39.
- Cameron, N. and Killpatrick, K., "Inversion Polynomials for Permutations Avoiding Consecutive Patterns", *Advances in Applied Mathematics*, Volume 67, (June 2015), 20-35.
- Garrett, K. and Killpatrick, K., "Generalized Legendre-Stirling Numbers", *Open Journal of Discrete Mathematics*, Volume 4, No. 4 (2014).
- Cameron, N. and Killpatrick, K., "Symmetry and Log-Concavity Results For Statistics on Fibonacci Tableaux", *Annals of Combinatorics*, Volume 17, Issue 4 (2013), pp. 603-618.
- Garrett, K. and Killpatrick, K., "A Relationship Between Balanced Modular Tableaux and k-Ribbon Shapes", *ARS Combinatoria*, Volume CVIII (January 2013), pp. 209-215.
- Killpatrick, K., "On the Parity of Certain Coefficients for a q-Analogue of the Catalan Numbers", *Electronic Journal of Combinatorics*, Volume 19, Issue 4 (2012), P27.
- Garrett, K. and Killpatrick, K., "A Sign-Reversing Involution on Bimahonian Generating Functions", *ARS Combinatoria* 100 (2011), 225-237.
- Killpatrick, K., "Some Statistics for Fibonacci Tableaux", *European Journal of Combinatorics*, 30 (2009), 929-933.
- Cameron, N. and Killpatrick, K., "k-Ribbon Fibonacci Tableaux", *Discrete Mathematics*, Volume 309, Issue 4, (6 March 2009), 721-740.
- *Bishop, L.* and Killpatrick, K., "Multi-ordered Posets", *Integers* 7 (2007), A6, 14pp.
- Garrett, K. and Killpatrick, K., "Combinatorial Proofs of Bivariate Generating Functions on Coxeter Groups", *International Journal of Algebra* 1 (2007), no.9-12, 405-419.
- Cameron, N. and Killpatrick, K., "Domino Fibonacci Tableaux", *Electronic Journal of Combinatorics*, 13 (1) (2006), Paper 45.
- Iga, K. and Killpatrick, K., "Truck Drivers, a Straw, and Sharing a Glass of Water", *College Math Journal*, Vol. 37, No.2, March 2006.

- Killpatrick, K., "A Relationship Between the Major Index For Tableaux and the Charge Statistic For Permutations," *Electronic Journal of Combinatorics*, **12** (2005), no.1 Paper 45.
- Killpatrick, K., "Evacuation and a Geometric Construction for Fibonacci Tableaux", *Journal of Combinatorial Theory, Series A*, 110 (2005) 337-351.
- Egge, E., Haglund, J., Killpatrick, K., and Kremer, D., "A Schroder Generalization of Haglund's Statistic on Catalan Paths", *Electronic Journal of Combinatorics*, 10, (2003), no. 1. Paper R16, 21pp.
- Chappell, K. and Killpatrick, K., "The effects of concept-based instruction on the conceptual understanding and skill development of Calculus students", *PRIMUS*, March 2003, Volume XIII, Number 1. pp. 17-37. Joint paper with K. Chappell.
- Bandlow, J., Egge, E. and Killpatrick, K., "A Weight-Preserving Bijection between Schroder Paths and Pattern-Avoiding Schroder Permutations", *Annals of Combinatorics*, **6**, (2002), pp. 235-248.
- Bandlow, J. and Killpatrick, K., "An Area-to-Inv Bijection between Dyck Paths and 312-Avoiding Permutations," *Electronic Journal of Combinatorics*, **8**, (2001), no.1. Paper 40, 16 pp.
- Killpatrick, K., "A Combinatorial Proof of a Recursion for the q-Kostka Polynomials", *Journal of Combinatorial Theory, Series A*, **92**, (2000), pg. 29-53.

## **PRESENTATIONS** (RELATED TO ADMINISTRATIVE WORK)

- EAB National Webinar: Spotlight on Pepperdine University: How a Student-Facing Technology Keeps Students Engaged and On Track (April 2022)
- "Lessons Learned From the Unexpected: How to Prepare and Respond When Disaster Strikes", American Association of Colleges and Universities (AAC&U), Washington, DC., January 2020. (Co-presenters: Michael Feltner and Kindy DeLong)
- "Seeking Educational Equity and Diversity (SEED) Seminars for Faculty", AAC&U Diversity, Equity and Student Success Conference, Pittsburgh, PA, March 2019. (Co-presenter: Sandra Harrison)
- "Implementing the SEED Initiative for Faculty", Leadership in Higher Education conference, Baltimore, MD, October 2017. (Co-presenter: Sandra Harrison)
- "Pepperdine University Female Faculty Mentoring Pod Program", University of New Mexico Mentoring Institute Conference on Mentoring, Albuquerque, NM, October 2015. (Co-presenter: Regan Schaffer)

## **PRESENTATIONS** (RELATED TO SCHOLARLY WORK, LAST FIVE YEARS)

- "The Super FiboCatalan Numbers", invited talk at the MSU online Combinatorics seminar, March 2024.

- “Fibonacci Numbers, Catalan Numbers and the Super FiboCatalan Numbers”, St. Olaf College Mathematics Seminar, March 2023.
- “Pattern Avoiding Generalized Alternating Permutations”, Joint Mathematics Meetings, San Diego, CA, January 2018.
- “Pattern Avoiding Generalized Alternating Permutations”, Permutation Patterns 2017, Reykjavik, Iceland, June 2017 (poster).
- “Inversion Generating Functions for Signed Pattern Avoiding Permutations”, Permutation Patterns, Washington, DC, June 2016. (Co-presenter: Naiomi Cameron)