

# STEPHEN COOK

California Polytechnic State University, San Luis Obispo  
Department of Mathematics  
38-209

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[My Website](#)

## ACADEMIC INTERESTS

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- Functional analysis
- Stochastic analysis
- Financial mathematics
- Computational sciences and deep learning
- Mathematical modeling

## EDUCATION

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### California Polytechnic State University, San Luis Obispo

- M.S., Mathematics (expected graduation: 2025).
- Advisor: Dr. Ryan Tully-Doyle.

### California Polytechnic State University, San Luis Obispo

- B.S., Applied Mathematics, *Summa cum laude* (2024).
- Minor: Computer Science.

## PUBLICATIONS

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1. **Condensed Ricci Curvature on Paley Graphs and their Generalizations** (joint with Vincent Bonini, Daniel Chamberlin, Parthiv Seetharaman, and Tri Tran). To appear in *Involve - a Journal of Mathematics*. [arXiv](#).

## POSTER SESSIONS

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1. *Condensed Ricci Curvature on Paley Graphs and their Generalizations* (joint with Daniel Chamberlin, Parthiv Seetharaman, and Tri Tran), Cal Poly, San Luis Obispo, Frost Poster Symposium, May 2024.
2. *Condensed Ricci Curvature on Paley Graphs and their Generalizations* (joint with Daniel Chamberlin, Parthiv Seetharaman, and Tri Tran), Moscone Center, Joint Mathematics Meetings, January 2024.

## CONFERENCES ATTENDED

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1. Joint Mathematics Meetings, Seattle Convention Center, January 2025 (to be attended).
2. Joint Mathematics Meetings, Moscone Center, January 2024.

## RESEARCH EXPERIENCE

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### Research Assistant - *California Polytechnic State University*

(June 2024 - September 2024)

- Advisor: Dr. Ryan Tully-Doyle.
- Related fields: Reproducing kernel Hilbert spaces, measure theory, Markowitz portfolio theory.

### Frost Research Associate - *California Polytechnic State University*

(March 2023 - June 2024)

- Advisor: Dr. Vincent Bonini.
- Related fields: Riemannian geometry, number theory, algebraic graph theory, finite field theory.

## AWARDS

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- [Lawrence and Ruth Renihan Scholarship](#) - California Polytechnic State University (May 2024).
- [Scholarship for the Advancement of Science and Technology](#) - California Polytechnic State University (May 2024)
- [Charles J. Hanks Excellence in Math Award](#) - California Polytechnic State University (May 2023)
- [Scholarship for the Advancement of Science and Technology](#) - California Polytechnic State University (May 2022)

## WORK EXPERIENCE

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### Jr. Software Developer - *Amazon*

(January 2022 - January 2023)

## CODING SKILLS

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- Python, Numpy, Tensorflow, Keras (expert)
- Matlab (proficient)
- Java (proficient)
- C (proficient)

## TEACHING EXPERIENCE

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### California Polytechnic State University, San Luis Obispo

- Teaching Associate; Precalculus (Winter 2025).
- Teaching Assistant; Precalculus (Fall 2024).
- Grader; Multivariate Calculus (Spring 2023).
- Tutor; Precalculus, Calculus, Computer Science (Fall 2022)