

## A MESSAGE TO OUR PROSPECTIVE STUDENTS...

We are glad that you are interested in mathematics. Let us tell you what we think is special about studying math at East Bay: our faculty, our students, and our staff! Our faculty are committed to providing opportunities for students to learn and engage actively with mathematics in the classroom and beyond. In a math class at East Bay, you won't just sit and listen, you will work with other students and your professors, grapple with challenging problems, and present your ideas together with your peers. You will have opportunities to teach and learn with students like you and with students very different from you. You will form study groups, work on problem sets, build on skills from one class to the next, do research, and engage deeply with the ideas of mathematics. We are a community of learners who care about each other, about math, and about education and society. Join us!

## WHY US?

### Career Opportunities:

- NASA Research Center
- Investment/Budget analysis
- Data analysis
- Energy Industry
- Sports Analytics
- Cryptography
- Healthcare
- K-12/Higher Education

### Research Opportunities:

- Mathematical Modeling
- Data Analysis
- Math Education
- Fractal Geometry
- Combinatorial Number Theory
- Mathematical Physics
- Representation Theory
- Discrete Mathematics



## CONTACT

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# CAL STATE EAST BAY

DEPARTMENT OF MATHEMATICS



*The Department of Mathematics is striving to operationalize our commitment to Access, Equity, Flexibility and Community. We are dedicated to creating equitable, inclusive, anti-racist spaces for students to grow, learn, and flourish as mathematical thinkers. We encourage all members of our community to engage in this ongoing work.*

Mathematics is an intriguing, interesting and beautiful subject. It is also challenging and rigorous. Students are drawn to mathematics because of its clarity and the joy of discovering solutions to difficult problems. The program allows flexibility in breadth and depth where students can choose among courses with applied and pure emphases. The faculty are committed to creating a welcoming environment and providing opportunities for all students to explore mathematics within and beyond the classroom.



# FACULTY SPOTLIGHTS

## Andrea Arauza Rivera (she/her)

Dr. Arauza Rivera is a Chicana Mathematician. She loves pupusas, cats, and collaborating with students on research and projects aimed at bringing greater equity to the STEM fields. Dr. Arauza's mathematical work includes:



- All things fractal geometry;
- Data science! Dr. Arauza has ongoing projects that use math and statistics to study, for example, food deserts in the Bay Area.

## Ryan Moruzzi, jr (He | Him | His)

Dr. Moruzzi Jr is a husband, dad, avid sports fan, and mathematician. He enjoys hanging with my family, being outside, playing/watching sports, and thinking about mathematics!



Dr. Ryan Moruzzi mathematical work includes:

- Representation theory of Lie algebras
- Discrete mathematics—particularly exploring graph parameters for various families of graphs.
- Visualizing and analyzing data via networks and network theory.

## Jesús Oliver (he/him)

Dr. Oliver was born in Anaco, raised in Caracas (Venezuela) and lived in México D.F. He loves playing with his one-year-old son, visiting his family in southern California, and reading about mathematical physics. Dr. Oliver currently focuses on two broad areas of investigation:



- Wave equations with applications to general relativity.
- Leveraging data to help close opportunity gaps for Black, Indigenous, People of Color (BIPOC) students enrolled in college math courses.

## Simone Sisneros-Thiry (she/her)

Dr. Sisneros-Thiry is a mathematician and educator born and raised in the East Bay. She loves cooking, hiking with her dog, and learning mathematics collaboratively.



Dr. Sisneros-Thiry's professional interests include:

- Number theory problems that involve drawing pictures, counting, and manipulating diagrams.
- Mathematics education and professional development for college instructors and future teachers.

## Mikahl Banwarth-Kuhn (She/Her)

Dr. Banwarth-Kuhn is a queer mathematical biologist born and raised in Albuquerque, NM. She LOVES the warm California sun and when not thinking about math you will find her thinking about how to make the spaces she occupies more equitable and inclusive. Dr. Banwarth-Kuhn's mathematical interests include:



Banwarth-Kuhn's mathematical interests include:

- Mathematical modeling of biological phenomena; her current projects include prion disease, stem cells in plants, and blood vessel development.
- Data Science: using tools from data science to find trends in data and estimate parameters for her models.

## Julia Olkin (she/her)

Dr. Olkin is a native Californian. Before joining CSUEB she worked for ten years as a Research Mathematician at SRI in Menlo Park, and as a substitute teacher/room mom in K-12. Dr. Olkin's professional interests include:



- Developing and teaching professional development workshops for teachers from elementary through college.
- Computational mathematics including numerical analysis, numerical linear algebra, optimization