CAL STATE MONTEREY BAY

Summer Research Symposium

Friday, August 7, 2026

Tanimura & Antle Family Memorial Library (508)

Hosted By

Undergraduate Research Opportunities Center

Cal State Monterey Bay
Undergraduate Research Opportunities Center

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UROC DIRECTOR'S WELCOME

Thank you for joining us for the
13th Annual CSUMB Summer Research Symposium!

Today's event celebrates the research and scholarly activities conducted by students in the Undergraduate Research Opportunities Center (UROC) Summer Program, Introductory College Apprentice Research Program with Gavilan, Hartnell, Los Angeles Valley College, Monterey Peninsula College, Climate Adaptation & Resilience Fellowship Program, CSUMB Monterey Marine Research Scholars, NIH Genome Research Experiences to Attract Talented Undergraduates into the Genomics Field to Enhance Diversity Scholars Program, MPC STEM Work-based Internships and Work Experience Programs, and School of Computing and Design Scholarship Program, and the CSUMB Water Agriculture Technology and Remote Sensing (WATRS) Lab.

Throughout the day, we invite you to enjoy 16 oral and 132 poster presentations in which students will describe their research on topics such as marine science, psychology, kinesiology, environmental science, business, computer science, and mechatronics engineering, to name just several of the many disciplines represented today.

We'd like to thank and acknowledge our colleagues from across the Monterey Bay region and beyond who serve as mentors to our students. These mentors play an invaluable role in the professional development of emerging scholars; their efforts help our students develop strong connections to the professional community and gain a deeper understanding of the research process along with newfound confidence in their abilities. We would also like to thank the Tanimura & Antle Library for the space to host the symposium.

Regards,

John "Buck" Banks, Ph.D.
Director, Undergraduate Research Opportunities Center
California State University, Monterey Bay

SCHEDULE OF EVENTS

TANIMURA AND ANTLE FAMILY MEMORIAL LIBRARY (508)

8:30 AM **Morning Registration & Coffee** -- UROC Lobby, Library Room 2150

9:00 AM **Opening Remarks** -- Library Rooms 2145 & 3170

9:05 AM **Oral Presentations**

Session 1: 9:05 AM-11:00 AM -- Library Room 3170

Session 2: 9:05 AM-11:30 PM -- Library Room 2145

12:00 PM **Lunch*** -- UROC Lobby, Library Room 2150

12:30 PM **Poster Presentations****

Odd poster numbers: 12:30PM-1:30PM

Even poster numbers: 1:30PM-2:30PM

3:00 PM **Closing Remarks, Mentor Recognitions, & Poster Presentation Awards** -- Library Archive Reading Room 3170

*Lunch provided for presenters

**Poster numbers: Pages 14-32

1st Floor: Poster #'s TBD
2nd Floor: Poster #'s TBD
3rd Floor: Poster #'s TBD

Research Abstracts: Scan Here:

ABOUT UROC

The Undergraduate Research Opportunities Center (UROC) at California State University, Monterey Bay is a cross-campus center that engages students in undergraduate research and scholarship. These experiences develop students' leadership, innovation, and personal skills for success in graduate school and professional careers.

MISSION

We promote scholarly identity, intellectual vibrancy, and the development of social capital by facilitating mentored undergraduate research, scholarship, and creative activities. We do this by helping students engage in rigorous, authentic, and calibrated scholarly activities, providing first-hand, transformative experiences through innovative and distinctive programs that enrich and broaden engagement opportunities for the campus and tri-county community.

CORE VALUES

UROC's programming is centered on a set of core values that capitalize and build upon students' interests, support their development, challenge them to apply their knowledge in authentic settings, and empower them to develop a mature, confident, and resilient identity.

UROC PROGRAM STAFF

John Banks, Ph.D.
Director

Natasha Oehlman, M.A.
Writing & Professional Communication Associate

Jessica Bautista, Ph.D.
Research Programs Associate

Eric Barajas, M.A.
Academic Outreach Specialist

Suzanne Ocegura
Administrative Analyst

Alondra Casas Navarro
UROC Writing Fellow

Latasha Neal
UROC Writing Fellow

Please visit CSUMB.edu/UROC webpage to learn more.

PARTICIPATING SUMMER RESEARCH PROGRAMS

CLIMATE ADAPTATION & RESILIENCE FELLOWSHIP PROGRAM (CARe Fellows)

Program Director: James Guilinger, Ph.D.
Department of Applied Environmental Science, CSUMB

The CARe Fellows programs, funded through NOAA and administered by California Marine Sanctuary Foundation, offers CSUMB College of Science undergraduate and graduate students an opportunity to be engaged in professional internships with regional partners relevant to climate adaptation, resilience, and risk reduction in the Monterey Bay region. Students funded through this program also complete advanced skills-based courses, practica, field camps, or workforce certifications designed to build in-demand workforce skills focused on the application of advanced science, technology, and policy.

CSUMB MONTEREY MARINE RESEARCH SCHOLARS

Program Director: Lydia Baker, Ph.D.
Department of Marine Science, CSUMB

The CSUMB Monterey Marine Research Scholars Program, in partnership with the Monterey Bay Aquarium's Global Oceans Conservation Division, provides CSUMB undergraduate students (Freshman–Junior standing) with hands-on summer research experience in marine conservation. Scholars work alongside Aquarium mentors on applied, data-driven projects focused on ocean sustainability, while developing technical, analytical, and professional skills that prepare them for future careers and graduate study in marine science.

GENOME RESEARCH EXPERIENCES TO ATTRACT TALENTED UNDERGRADUATES INTO THE GENOMICS FIELD TO ENHANCE DIVERSITY SCHOLARS PROGRAM (GREAT SCHOLARS)

Program Directors: Nate Jue, Ph.D.[1] and Shahidul Islam, Ph.D.[2]
[1]Department of Biology and Chemistry, CSUMB
[2]School of Computing and Design, CSUMB

The GREAT scholars program is an initiative funded by the NIH's National Human Genome Research Institute to train undergraduate students from historically underrepresented and low-income populations for careers in genomics.

INTRODUCTORY COLLEGE APPRENTICE RESEARCH EXPERIENCE (iCARE): GAVILAN COLLEGE, HARTNELL COLLEGE, LOS ANGELES VALLEY COLLEGE, & MONTEREY PENINSULA COLLEGE

Program Director: John Banks, Ph.D.
UROC, CSUMB

CSUMB is proud to partner with Gavilan College, Hartnell College, Los Angeles Valley College (LAVC), and Monterey Peninsula College (MPC) to offer the iCARE program to undergraduate students at the CSUMB campus. Students will participate in faculty-mentored undergraduate STEM research that is composed of rigorous, authentic, and calibrated scholarly activities by providing first-hand experiences through innovative and distinctive activities.

KORET SCHOLARS

Program Director: John Banks, Ph.D.
UROC, CSUMB

The Koret Scholars program, funded by the Bay Area Koret Foundation, offers CSUMB undergraduates an opportunity to be engaged in robust inter-disciplinary social science research facilitated by CSUMB faculty mentors, with a goal to disseminate research regionally and nationally at conferences.

McNAIR SCHOLARS (RONALD E. McNAIR POST-BACCALAUREATE ACHIEVEMENT SCHOLARS PROGRAM

Program Director: John Banks, Ph.D.
UROC, CSUMB

The McNair Scholars program prepares CSUMB undergraduate students for doctoral level studies. The program engages students in research and other scholarly activities that support the successful transition to graduate school. The McNair Scholars Program's ultimate goal is to diversify the faculty at colleges and universities across the country.

MONTEREY PENINSULA COLLEGE (MPC) STEM WORK-BASED INTERNSHIPS AND WORK EXPERIENCES PROGRAM

Program Directors: Herbert Cortez, M.P.P.[1] & Christian Smith[2]
[1]HSI-STEM, MPC
[2]MESA Director, MPC

Remotely Operated Vehicles (ROVs) Micro-Internship: MPC STEM explored marine technologies and engineering, including their use in marine ecology. Students will learn to operate ROVs and other water-sampling tools used in marine research while conducting their own research projects. There will be several field trips to explore various technologies, and students will conduct their own original research projects.

Mathematics Micro-research projects: MPC Mathematics students participated in individual research projects under the mentorship and direction of Dr. Silvia Milan-Vossler. Students were able to apply theoretical mathematical concepts to a structured research framework. Students developed critical analytical skills, engaged in rigorous problem-solving, and contributed to the academic community's understanding of specific mathematics focus.

SCHOOL OF COMPUTING AND DESIGN SCHOLARSHIP PROGRAM

Program Director: Shahidul Islam, Ph.D.
School of Computing and Design, CSUMB

The SCD Scholarship Program supports undergraduate students in the School of Computing and Design (SCD) as they participate in faculty-mentored research and scholarly activities. Students gain hands-on research experience while contributing to projects in computing and design under the guidance of faculty mentors. Aligned with CSUMB's Discovery, Creation, and Integration (DCI) mission, the program supports student research development through meaningful engagement in scholarly and creative work.

UROC RESEARCHERS

Program Director: John Banks, Ph.D.
UROC, CSUMB

The UROC Researchers program provides students opportunities to engage in paid research experiences under the mentorship of faculty or community mentors at any time during their undergraduate careers. The program supports CSUMB students from diverse social, economic, and educational backgrounds

pursuing the intellectual, academic, and professional benefits related to engagement in undergraduate research.

UROC SCHOLARS

Program Director: John Banks, Ph.D.
UROC, CSUMB

UROC Scholars enroll in a four-semester undergraduate research workshop series and work closely with CSUMB faculty mentors on individual research projects. During the summer, Scholars typically conduct research outside the region through established summer research programs. UROC Scholars are encouraged to present their work at national and regional conferences and publish with their research team to prepare for careers and graduate school post-CSUMB.

WATER AGRICULTURE TECHNOLOGY AND REMOTE SENSING (WATRS) LAB AT CSUMB

CSUMB Lead: A.J. Purdy, Ph.D.
Department of Applied Environmental Science, CSUMB
NASA Ames Research Center

The WATRS Lab is part of the NASA Ames Research Center Cooperative for Research in Earth Science and Technology (ARC-CREST). Interns funded through the lab participate in multiple research projects focused on the measurement and satellite-based modeling of evapotranspiration, or ET. Students contribute to applied science projects related to ET measurement, modeling, and evaluation in support of water management from farm to basin scales. Interns in the WATRS Lab gain hands-on field experience with instrumentation in operational agricultural fields and have the opportunity to work directly with NASA scientists and software engineers on ET measurement, remote sensing modeling, sensitivity analysis, and web application development. Through this work, students learn best practices in measurement, data collection, quality control, computer programming, and open-source collaboration. They also gain perspective on how scientific data can be applied to real-world problems.

ORAL PRESENTATIONS

SESSION 1

9:05 AM – 11:00 AM, Library Room 3170
Moderator: Latasha Neal

9:05 AM **The Evolution of the Final Girl Trope and How Culture and Society Views It Today**
Augustine Blythe & Meghan Olivas, Ph.D.
Department of Cinematic Arts and Technology, California State University, Monterey Bay

9:20 AM **Assessing the Correlation Between Sleep Deprivation and Working Memory in College Students**
Wren Pinkela & Jill Yamashita, Ph.D.
Department of Psychology, California State University, Monterey Bay

9:35 AM **Little Engineers, Big Persistence: Behavioral Coding of Emotion Regulation and Persistence Amongst Preschoolers During Classroom Robotics Programming**
Elizabeth Schmidt & Tess Shirefley, Ph.D.
Department of Human Development and Family Science, California State University, Monterey Bay

9:50 AM **Student Perceptions of the Competencies Desired by Potential Employers in 2026**
Karissa R. Gralnick, Tyler A. Geipel, Riley M. Morrell, & Jennifer Dyer-Seymour, Ph.D.
Department of Psychology, California State University, Monterey Bay

10:05 AM **Differences in Decision-Making Regarding Sentencing Outcomes for Individuals with Intellectual Disabilities: A Systematic Review**
Emily Chandler, **Jaylin Van Guilder**, & Danielle Burchett, Ph.D.
Department of Psychology, California State University, Monterey Bay

10:20 AM **BREAK**

10:30 AM **Roots and Identity: The Impact of Grandparent Socialization on Grandchildren Identity**

Denise Angulo[1], Elisa Gomez, M.A.[2], Emely Covarrubias, M.A.[2], Alexis Reimers-Contreras[2], & Mayra Y. Bámaca, Ph.D.[2]

[1]*Department of Psychology, California State University, Monterey Bay*

[2]*Department of Psychology, University of California, Merced*

10:45 AM **Nursing at Ft. Ord from the 1970s until Closure: Context Creates Stories**

Daylyn R. Reese[1] & Sara Salazar Hughes, Ph.D.[2]

[1]*Department of Applied Environmental Science, California State University, Monterey Bay*

[2]*Department of Social Sciences and Global Studies, California State University, Monterey Bay*

SESSION 2

9:05 AM – 11:30 AM, Library Room 2145
Moderator: Alondra Casas Navarro

9:05 AM **Breeding Behaviors and Response to Drones of Heermann's Gulls in Seaside, CA**
Aidan Randall[1] & Jennifer Duggan, Ph.D.[2]
[1]Department, of Biology, Agriculture & Chemistry, California State University, Monterey Bay
[2]Department of Applied Environmental Science, California State University, Monterey Bay

9:20 AM **Exercise is Medicine on Campus: Challenges, Successes, and Means for Program Improvement**
Kendra Weaver, Lisa J. Leininger, Ed.D., & Sara M. Powell, Ph.D.
Department of Kinesiology, California State University, Monterey Bay

9:35 AM **Skill Development and Career Preparation Among Physical Activity Leaders in an Exercise is Medicine-On Campus Peer Mentoring Program**
Liam Lewis, Lisa J. Leininger, Ed.D., & Sara M. Powell, Ph.D.
Department of Kinesiology, California State University, Monterey Bay

9:50 AM **Automatic Sound Design: Inferring Synthesizer Patches from Audio**
Timothy Felde & Glenn Bruns, Ph.D.
School of Computing and Design, California State University, Monterey Bay

10:05 AM **Evaluating Large Language Models for Expert-Annotated Food Image Identification, Categorization, and Nutrition Literacy**
Matthew Davis[1], **Vanessa Devore**[1], Dakota Fouch[1], **Jacob Teeples**[2], & Dongji Feng, Ph.D.[1]
[1]School of Computing and Design, California State University, Monterey Bay
[2]Department of Applied Environmental Science, California State University, Monterey Bay

10:20 AM **BREAK**

10:30 AM **Habitat Characteristics that Influence Chiton Diversity and Abundance**
Gabriel Pinilla & Gerick Bergsma, Ph.D.
Department of Marine Science, California State University, Monterey Bay

10:45 AM **Evaluating the Influence of Linguistic Diversity for Statistics Students in Short-Answer Responses with Causal Inference**
Stephanie Lara-Sotelo[1], Emi Cervantes[2], & Matthew Beckman, Ph.D.[2]
[1]Department of Mathematics and Statistics, California State University, Monterey Bay
[2]Department of Statistics, The Pennsylvania State University

11:00 AM **Transcending Environmental Education: An Educational Model Guiding the Cooperation Between Indigenous Wisdom and Empirical/Western Sciences**

Juan T. Barkley[1] & Madeline L. Nyblade, Ph.D.[2]

[1]Department of Applied Environmental Science, California State University, Monterey Bay

[2]Department of Environmental Studies, State University of New York College of Environmental Science and Forestry

11:15 AM **Crevice Availability and Condition and Its Impact on Black Abalone (*Haliotis cracherodii*)**

Lily Myers[1], Addison Ryne[2], & Alison J. Haupt, Ph.D.[1]

[1]Department of Marine Science, California State University, Monterey Bay

[2]Moss Landing Marine Laboratories, San José State University

POSTER PRESENTATIONS

Poster Session 1

12:30 PM – 1:30 PM

Odd Poster Numbers

Poster Session 2

1:30 PM – 2:30 PM

Even Poster Numbers

Poster numbers are listed as they appear in the program and can be found on the top right corner of the poster. Posters are listed either under the academic department of the faculty mentor or program affiliation**. Scan the QR code for abstracts:**

1st Floor: Poster #'s: TBD
2nd Floor: Poster #'s: TBD
3rd Floor: Poster #'s: TBD

CARe FELLOWS

1. **What Route to Find Trout: Comparing Steelhead Trout Survey Methods in Big Sur Coast Streams**
   Alannah Cetti[1] & Emily Campbell, Ph.D.[2]
   [1]Department of Marine Science, California State University, Monterey Bay
   [2]California Department of Fish and Wildlife, Region 4, Coastal Fisheries Team

2. **Climate Action Plan Funding and Implementation**
   Jonathan Davies[1], Julia Kim M.P.P.[2,3], & Prati Rosen M.A.[2,3]
   [1]Department of Applied Environmental Science, California State University, Monterey Bay
   [2]Central Coast Climate Collaborative (4C)
   [3]Farallon Strategies

3. **Native Plant Restoration on the Elkhorn Slough Reserve**
   Amanda A. Favorite[1] & Dash O. Dunkell, M.S.[2]
   [1]Department of Applied Environmental Science, California State, Monterey Bay
   [2]Elkhorn Slough Foundation

4. **Identifying the Environmental Drivers of Microcystin Concentration from Long-Term Water Quality Monitoring in Pinto Lake, Santa Cruz County**
   Joshua Galvez[1] & Eric Baugher, M.S.[2]
   [1]Department of Marine Science, California State University, Monterey Bay
   [2]Department of Environmental Health, Santa Cruz County

5. **Using GIS Tools to Support the Placement of Vegetated Ditches to Improve Water Quality within the Gabilan Creek Watershed**
Graciela Jimenez Crispin, Joab Pimetel, & James Guilinger, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

CSUMB MONTEREY MARINE RESEARCH SCHOLARS

6. **Temporal Variability in Commercial Fisheries Catch Composition and Implications for Seafood Sustainability Assessments**
Soren B. Maxfield-Sawada[1], Sam Wilding, M.S.[2], & Rachel Zuercher, Ph.D.[2]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Seafood Watch Program, Monterey Bay Aquarium*

7. **Caught in the Overlap: Spatial Overlap Between Fisheries Footprints and Threatened Marine Species**
Alex M. Shima[1], Lydia Baker, Ph.D.[1], Santi Roberts, M.S.[2], & Rachel Zuercher Ph.D.[2]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Department of Global Ocean Conservation, Monterey Bay Aquarium*

8. **A First Assessment of Microplastic Contamination in Eastern North Pacific Blue Whale (*Balaenoptera musculus*) Digestive Systems**
Owen Papegaay[1], Jack Barkowski[2,3], John Calambokidis[3], Win Cowger, Ph.D.[4], Lindsay Darjany, M.S.[4], & Matthew Savoca, Ph.D.[2,5]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Oceans Department, Stanford University*
[3]*Cascadia Research Collective*
[4]*Moore Institute for Plastic Pollution Research*
[5]*California Marine Sanctuary Foundation*

GREAT SCHOLARS

9. **Rediscovering *Nicotiana quadrivalvis*: Genomic Evidence Connecting a Living Population to Lewis and Clark's 1804 Collection**
Viviana Agredano Serrano[1], Madeline Slimp, B.S.[2], Richard M. McCourt, Ph.D.[3], Loren Yellow Bird, B.A.[4], & Rachel Meyer, Ph.D.[2]
[1]*Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay*
[2]*Department of Ecology and Evolutionary Biology, University of California, Santa Cruz*
[3]*Academy of Natural Sciences of Drexel University*
[4]*National Parks Service, Fort Union*

10. **Learning Non-linear Genetic Interactions to Improve Prediction of Chronic Wasting Disease in North American Elk**
Brandon Algarra[1], Cole Shanks[2], & Alexander Loannidis, Ph.D.[2]
[1]*School of Computing and Design, California State University, Monterey Bay*
[2]*Department of Biomolecular Engineering, University of California, Santa Cruz*

11. **A Mechanistic Deep Learning Approach Towards Understanding Drug Treatment Effectiveness in Wound Healing**
Cameron Cornforth[1], Oscar Avalos[2], & Marcella Gomez, Ph.D.[2]
[1]Department of Mathematics and Statistics, California State University, Monterey Bay
[2]Department of Applied Mathematics, University of California, Santa Cruz

12. **Optimization of Brain Cortical Organoid Culture Conditions Across Human iPSC Cell Lines**
Pablo Cueto[1], Christopher Nguyen[2,3], & Sofie Salama, Ph.D.[2, 3,4]
[1]Department of Biology, California State University, Monterey Bay
[2]Genomics Institute, University of California, Santa Cruz
[3]Department of Biomolecular Engineering, University of California, Santa Cruz
[4]Department of Molecular, Cell & Developmental Biology, University of California, Santa Cruz

13. **Characterizing the Histological Composition of Glioma-cortical Organoid Co-cultures and the Effect of Extracellular Vesicle Secretion Inhibition on Neural and Glioma Cells**
Ulrike Eschner[1], Viktor Yurevych[2,3], & Sofie Salama, Ph.D.[2,3,4]
[1]Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay
[2]Genomics Institute, University of California, Santa Cruz
[3]Department of Molecular, Cell & Developmental Biology, University of California, Santa Cruz
[4]Department of Biomolecular Engineering, University of California, Santa Cruz

14. **Population Structure and Local Adaptation in California Current Brown Rockfish**
Dalton K. Garcia[1], Libby Gilbert-Horvath[2,3], & John Carlos Garza, Ph.D.[2,3,4]
[1]Department of Mathematics and Statistics, California State University, Monterey Bay
[2]Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA
[3]Institute of Marine Sciences, University of California, Santa Cruz
[4]Department of Ocean Sciences, University of California, Santa Cruz

15. **Expression and Purification of Shelterin TRF1-core Complex Using the Baculovirus Expression System to Study Telomere Structure and Function**
Luca Gonzalez-Bustos[1], Justin Diaz[2], Meilin Liu[2], & Michael D. Stone, Ph.D.[1,2]
[1]Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay
[2]Department of Chemistry and Biochemistry, University of California, Santa Cruz
[3]RNA Center, University of California, Santa Cruz

16. **Molecular Catalog and Phylogeny of Candidate Phototransduction Genes in the Jellyfish Aurelia**
Owen Kim[1], Rachel Parsons[2], & Aide Macias-Muñoz, Ph.D.[2]
[1]Department of Biology, Agriculture and Chemistry California State University, Monterey Bay
[2]Institute of Marine Sciences, University of California, Santa Cruz

17. **Interpreting an LSTM Model for Single-Spore Germination Prediction from Time-Series Imaging Data**
Maximilian J. Marshall[1], Alexandra E. Nava[2], Glenn Bruns Ph.D.[1], & Marcella M. Gomez Ph.D.[2]
[1]School of Computing and Design, California State University, Monterey Bay
[2]Department of Applied Mathematics, University of California, Santa Cruz

18. **Optimizing vg-anchors: Improving Computational Efficiency for Pangenome Graph-Based Genome Assembly**
Hugo M. Ruiz-Mireles[1], Shloka Negi[2], & Benedict Paten, Ph.D.[2]
[1]School of Computing and Design, California State University, Monterey Bay
[2]Genomics Institute, University of California, Santa Cruz

19. **Structural Variation and Functional Diversity in Human Zinc Finger Genes from the Human Pangenome Reference Consortium**
Van K. Stewart[1], Maximillian G. Marin, Ph.D.[2,3], Colette Felton[4,5], & Angela N. Brooks, Ph.D.[4,5]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Department of Data Science, Dana Farber Cancer Institute
[3]Department of Biomedical Informatics, Harvard Medical School
[4]Department of Biomolecular Engineering, University of California, Santa Cruz
[5]Genomics Institute, University of California, Santa Cruz

iCARE: GAVILAN, HARTNELL, LAVC, & MPC COLLEGES

20. **LEAF: LiDAR-Enabled Evaluation of Affordable Field Robotics: Evaluating the Unitree Go2 Pro as an Autonomous Under-Canopy Mobility Platform for Precision Agriculture**
Frankie Chervony[1] & Niu Haoyu, Ph.D.[2]
[1]Department of Chemistry, Physics and Engineering, Los Angeles Community College
[2]Department of Mechatronics Engineering, California State University, Monterey Bay

21. **How Biophilic Design Can Benefit University Students: A Literature Review and Case Study**
Yoali Cruz-Jimenez[1] & Victoria Derr, Ph.D.[2]
[1]Gavilan College
[2]Department of Applied Environmental Science, California State University, Monterey Bay

22. **Improving Student Comprehension of Computational Complexity**
Yasmin S. Forster[1] & Joshua B. Gross, Ph.D.[2]
[1]Physical Sciences Division, Monterey Peninsula College
[2]School of Computing and Design, California State University, Monterey Bay

23. **Organization of Water Molecules in Microsolvated Ion Pairs of Ammonium Salts**
Virgilio Hernandez Cruz[1], **Marie Michaella Ibuos**[2], & Arun K. Sharma, Ph.D.[3]
[1]*Department of Biological Sciences, Hartnell College*
[2]*Department of Chemistry, Gavilan College*
[3]*Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay*

24. **Identifying Optimal Locations for Plastic Remediation in Agriculture Drainage Ditches**
Daniel Hogan[1], **Logan Quigley**[2], Matthew Biermann[3], & John Olson, Ph.D.[2]
[1]*Physical Sciences Department, Monterey Peninsula College*
[2]*Department of Chemistry, Physics and Engineering, Los Angeles Community College*
[3]*Department of Applied Environmental Science, California State University, Monterey Bay*

25. **Reflection on Using Generative AI to Produce Guidance Instead of Code for Learning Programming Languages**
Jovonte Jones[1] & Joshua Gross, Ph.D.[2]
[1]*Department of Computer Science, Gavilan College*
[2]*School of Computing and Design, California State University, Monterey Bay*

26. **Designing and Evaluating Robotic Boom Sprayer Configurations for Agricultural Pesticide Application**
Maxwell S. Ollivier[1], **Jeffrey J. Boggs**[2], **Joshua A. Torres Cerpas**[3], & Prashanta Pokharel, Ph.D.[2]
[1]*Department of Chemistry, Physics and Engineering, Los Angeles Valley College*
[2]*Department of Mechatronics Engineering, California State University, Monterey Bay*
[3]*Department of Engineering, Hartnell College*

27. **Evaluating Nitrogen Management Practices to Reduce N_2O Emissions in Salinas Valley Agriculture**
Nirali Pandya[1], **Diana Soto**[1], Stefanie Kortman, M.S.[2], & Arlene Haffa, Ph.D.[2]
[1]*Life Sciences Division, Monterey Peninsula College*
[2]*Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay*

28. **Cost-effective Agriculture E-Bike Robotics Platform**
Jorge Uribe[1], **Miguel Rivera-Martinez**[2], & Haoyu Niu, Ph.D.[3]
[1]*Gavilan College*
[2]*Physical Sciences Division, Monterey Peninsula College*
[3]*Department of Mechatronics Engineering, California State University, Monterey Bay*

KORET SCHOLARS

29. **Investigating the Impact of a Draw-A-Researcher Activity on Human Development**
Amaiah S. Carlos & Tess Shirefley, Ph.D.
Department of Human Development and Family Science, California State University, Monterey Bay

30. **Student Perceptions of Employer Values in 2026- A Comparison Between Social Science and Physical and Life Science Majors**
Itzel Fahey Vivo, Alison Jensen, Evan Munoz, & Jennifer Dyer-Seymour, Ph.D.
Department of Psychology, California State University, Monterey Bay

31. **Challenge, Competence, and Fulfillment: A Framework for Motivation in Career and Life Direction**
Benjamin Hernandez & Chrissy Hernandez, Ph.D.
Department of Psychology, California State University, Monterey Bay

32. **How Does Long-term Restrictive Housing Affect the Mental Health of Incarcerated Individuals?**
Marisa Paduani[1] & Danielle Burchett, Ph.D.[2]
[1]*Department of Health, Human Services and Public Policy, California State University, Monterey Bay*
[2]*Department of Psychology, California State University, Monterey Bay*

McNAIR SCHOLARS PROGRAM

33. **Imagining Disability Justice Futures with BIPOC Long COVID Survivors**
Fatima Arellano, Galilea Bustos-Ataide, Ivet Machuca, Iris Fuentes, **Daniela Munguia**, & C.E. Rosales, Ph.D.
Department of Psychology, California State University, Monterey Bay

34. **Examining Media Exposure and Parenting Intentions in Young Adults**
Galilea Bustos-Ataide[1], Helen Fann, Ph.D.[2], & Tess Shirefley, Ph.D.[2]
[1]*Department of Psychology, California State University, Monterey Bay*
[2]*Department of Human Development and Family Science,California State University, Monterey Bay*

35. **Employers' Perception of the Vital Competencies for Successful Employment as a College Graduate in 2026**
Dalia Canchola, **Alex Olivas,** Filippa Waerme, **Gabriel Rodriguez**, & Jennifer Dyer-Seymour, Ph.D.
Department of Psychology, California State University, Monterey Bay

36. **Employers' Perception of the Vital Competencies for Successful Employment as a College Graduate in 2026**
Dalia Canchola, Alex Olivas, **Filippa Waerme**, Gabriel Rodriguez, & Jennifer Dyer-Seymour, Ph.D.
Department of Psychology, California State University, Monterey Bay

37. **The More Things Change, The More They Stay the Same: A Comparison of Employers' Ratings of the Importance of New Hires' Skills in 2003 and 2025**
Devin Chapa, Naomi Ybarra, Katherine Caballero, & Jennifer Dyer-Seymour, Ph.D.
Department of Psychology, California State University, Monterey Bay

38. **Bicultural Identity and Social Media Use Among Hispanic Latinx Young Adults in the United States**
Andrea Tamayo[1] & Alan Meca, Ph.D.[2]
[1]*Department of Psychology, California State University, Monterey Bay*
[2]*Department of Psychology, University of Texas at San Antonio*

39. **A Systematic Literature Review of Stalking as a Precursor to Intimate Partner Violence**
Makayla J. Thomas, **Jacquelyn E. Martinez**, & Danielle Burchett, Ph.D.
Department of Psychology, California State University, Monterey Bay

40. **An Updated Systematic Literature Review on the Effectiveness of Prazosin for the Purpose of Treating PTSD Nightmares**
Jasmine Torres & Danielle Burchett, Ph.D.
Department of Psychology, California State University, Monterey Bay

41. **Testing the Efficacy of Common Crop Fencing Types to Prevent the Intrusion of Mice in the Salinas Valley**
Joel Viorato Arambula & Jennifer M. Duggan, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

MPC STEM WORK-BASED INTERNSHIPS AND WORK EXPERIENCES PROGRAM

42. **Environmental Factors Influencing Abundance of Strawberry Anemones using ROVs**
Kaelyn Chandra, Taya Stockton, Olivia Urtiz Gonzalez, & Kevin A. Raskoff, Ph.D.
Department of Biology, Monterey Peninsula College

43. **Through the Lens of an ROV: Analyzing the Biodiversity of the Monterey Bay Ecosystem at the Monterey Municipal Wharf**
Pele Cain, Kira Purka, & Kevin A. Raskoff, Ph.D.
Department of Biology, Monterey Peninsula College

44. **Fish Abundance and Diversity Across Eelgrass, Red Algae, and Border Habitats in Monterey Bay Using ROVs**
Diana Carrasco, Eric Martinez, Yosiomar Santos Rivera, & Kevin A. Raskoff, Ph.D.
Department of Biology, Monterey Peninsula College

45. **The Influence of Food Availability on the Distribution of the Sea Star, *Pisaster ochraceus*, using ROV Observations**
Robert Luna, Olivia Rhodes, Gabriela Rosas, & Kevin A. Raskoff, Ph.D.
Department of Biology, Monterey Peninsula College

46. **The Complex Variable Function: f(z)=z + z^-1**
Pietro Gibbons
Monterey Peninsula College

47. **Complex Trigonometric Function: f(z) = se f(z) = sec (½z) c (½z)**
Jazmín Dorado Guillén
Monterey Peninsula College

48. **Understanding Complex Functions: tan(z)**
Kegan Willson & Silvia Millan-Vossler
Monterey Peninsula College

49. *Monterey Peninsula College*

50. *Monterey Peninsula College*

SCHOOL OF COMPUTING AND DESIGN SCHOLARSHIP PROGRAM

51. **Redesigning DisceRNA: From Prototype to a Scalable Citizen Science Platform for 3D RNA Motif Analysis**
Justin Andreoli & Shahdiul Islam Ph.D.
School of Computing and Design, California State University, Monterey Bay

52. **An Explainable AI Platform for Personalized College and Career Guidance**
Aaron E. Perez & Amir Attia, Ph.D.
School of Computing and Design, California State University, Monterey Bay

53. **Procedurally Generated Adaptive Music for a Roguelite Game: Rogue Dreams**
Andrew D. Ryer, **Ethan Ayaay**, & Drew A. Clinkenbeard, Ph.D.
School of Computing and Design, California State University, Monterey Bay

54. **Researching and Developing a 3D Interactive Character for a Projection Mapped Community Mural**
Luz Perez-Rojas, **B.A.** & Hannah Belan, M.F.A.
School of Computing and Design, California State University, Monterey Bay

55. **Integrating the Oral Exam Manager with Canvas to Scale Oral Assessment in Higher Education**
Geyuan Tan & Shahidul Islam, Ph.D.
School of Computing and Design, California State University, Monterey Bay

WATER AGRICULTURE TECHNOLOGY AND REMOTE SENSING (WATRS) LAB

56. An Evaluation of a Low-Cost Evapotranspiration Measurement Method in the Salinas Valley

Finn Ceja[1], Joseph Spota[1], Lee Johnson, M.S.[1,2], Michael Cahn, Ph.D.[3], & AJ Purdy, Ph.D.[1,2]
[1]Department of Applied Environmental Science, California State University, Monterey Bay
[2]NASA Ames Research Center Cooperative for Research in Earth Science and Technology
[3]UC Cooperative Extension of Monterey County

57. Monthly Evapotranspiration Interpolation for the Computation of Historical Evapotranspiration of Applied Water and Effective Precipitation

Matthew D. Davis[1], Conor Doherty, Ph.D.[2,3], & A.J. Purdy, Ph.D.[2,3]
[1]School of Computing and Design, California State University, Monterey Bay
[2]Department of Applied Environmental Science, California State University, Monterey Bay
[3]NASA Ames Research Center Cooperative for Research in Earth Science and Technology

58. A Water Balance Evaluation of OpenET Evaporation across the Western United States

Elizabeth A. Paulin[1], **Subi Nair M.S.**[1], Jon Detka Ph.D.[1], & AJ Purdy Ph.D.[1,2]
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COLLEGE OF ARTS, HUMANITIES, AND SOCIAL SCIENCES

DEPARTMENT OF CINEMATIC ARTS & TECHNOLOGY

59. How do Hispanic Women Filmmakers in California Navigate Funding, Labor, and Institutional Systems, and How do These Experiences Shape Their Careers and the Societal Impact of Their Films?

Gabriela Barajas & Chris Carpenter, BIS
Department of Cinematic Arts and Technology, California State University, Monterey Bay

60. Writing and Preparing an Experimental Micro Musical

Daniel Fitzgerald & Timothy Orme
Department of Cinematic Arts and Technology, California State University, Monterey Bay

DEPARTMENT OF HUMANITIES AND COMMUNICATION

61. The Gap Between Law on Paper and Law in Practice: Examining Unequal Experiences of Law
Kasak Deep Kaur & Kaiqi Hua, J.D., Ph.D.
Department of Humanities and Communication, California State University, Monterey Bay

62. The Political Ecology of Monterey Bay's Golf Courses: An Intersectional Analysis of Tourism, Politics, and the Environment
Rylee K. Jue & Kaiqi Hua, J.D., Ph.D.
Department of Humanities and Communication, California State University, Monterey Bay

DEPARTMENT OF PSYCHOLOGY

63. Youth Detention and Development: Environmental Stressors, Institutional Climate, and Carceral Harm
Navid Khosravi Amarlou[1] & Richard Wener, Ph.D.[2]
[1]*Department of Psychology, California State University, Monterey Bay*
[2]*Department of Technology, Culture and Society, New York University, Tandon*

64. The Impact of Service Learning on Students' Awareness, Knowledge, and Social Justice Skills
Lawrence A. Camat, **Bella B. Sinclair**, **Eli F. Katosic**, & Jennifer L. Lovell, Ph.D.
Department of Psychology, California State University, Monterey Bay

65. Proposed Systematic Review on Trauma-Focused Interventions and Behavioral Outcomes for Justice-Involved Youth
Jennifer Carranza & Danielle Burchett, Ph.D.
Department of Psychology, California State University, Monterey Bay

66. The Impact of Bilingualism on False Memory and Confidence
Carlos Garcia, **Rogelio Ahumada**[1], **Elena Pineda**[1], **Jakob Haney**[2], Reina Yorba-Rico[1], Carolina Abrams Balderas[1], Maria Hernandez[1], Nadia Gutierez[1], Renee M. Penalver, Ph.D.[1], and Psychology 355/Bilingual Cognition[1] (Fall 2025)
[1]*Department of Psychology, California State University, Monterey Bay*
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67. Associations Between the MMPI Response Bias Scale and Performance Validity Scales: A Systematic Review
Kiaya Rowlett & Danielle Burchett, Ph.D.
Department of Psychology, California State University, Monterey Bay

DEPARTMENT OF SOCIAL SCIENCES AND GLOBAL STUDIES

68. AI and Your Career Path: How Young Adults Envision Work Today
Flavio Cuevas[1] & Max Papadantonakis, Ph.D.[2]
[1]Department of Humanities and Communication, California State University, Monterey Bay
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DEPARTMENT OF VISUAL ARTS AND MUSIC

69. Successfully Capturing the Voice of a Community as a Public Artist
Anna K. Linna-Johnson & Matthew Floriani, M.F.A.
Department of Visual and Public Art, California State University, Monterey Bay

DEPARTMENT OF WORLD LANGUAGES AND CULTURES

70. Indigenous Resistance Through Food Preservation in Okinawa, Japan
Jenifer Segovia[1] & Dustin Wright, Ph.D.[2]
[1]Department of Global Studies , California State University, Monterey Bay
[2]Department of World Languages and Cultures, California State University, Monterey Bay

71. Is Okinawa's History Being Overlooked Through Food Tourism
Azriel R. Winchester[1] & Dustin Wright, Ph.D.[2]
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COLLEGE OF BUSINESS

SCHOOL OF BUSINESS

72. Does Accounting Firm AI Adoption Reduce Audit Report Lag?
Shiv Patel & Shaowen Hua, Ph.D.
School of Business, California State University, Monterey Bay

COLLEGE OF EDUCATION

DEPARTMENT OF LIBERAL STUDIES

73. Parent Perspectives on Communication, Support, and Inclusion in a Bilingual Education Program: A Qualitative Study in the South Bay Union School District
Jadelynn Capron[1] & Jafeth E. Sanchez Ph.D.[2]
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COLLEGE OF SCIENCE
DEPARTMENT OF APPLIED ENVIRONMENTAL SCIENCE

74. Understanding How Climate Change is Affecting a Key Indicator Species: Artificial Nesting for Heermann's Gulls
Jose Marquez[1] & Victoria Derr Ph.D.,[1,2]
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75. Hydrologic GIS Support for Post-Fire Debris Flow Hazard Science
Ian Buchanan, **Geo Mendoza**, **M.S.**, Madalyn Sears, & James Guilinger, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

76. Optimal Fog Collector Orientation in Coastal California
Kirsten-Charmaine Cardozo & Daniel Fernandez Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

77. Assessing the Effects of Large Woody Debris on Restoration Sites in Aptos Creek within the Forest of Nisene Marks State Park, California
Joshua Cheng, Joshua Michel, & James Guilinger, Ph.D.
Department of Applied Environmental Science, California State, University, Monterey Bay

78. Exploring the Potential of GEDI-derived Vegetation Structure Metrics to Improve the USGS M1 Debris Flow Prediction Model
Geo Mendoza, M.S., Ian Buchanan, B.S., & Jimmy Guilinger, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

79. Monthly Fog Water Collection Along the California Coast
Kayla Payne & Daniel Fernandez, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

80. Assessment of Average Monthly Fog Water Collection at Two California Coastal Sites
Jillian Raffin & Daniel Fernandez, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

81. Assessing and Communicating Dormitory Water and Electricity Use
Jordan Sarrail & Seth Gustafson, Ph.D.
Department of Applied Environmental Sciences, California State University, Monterey Bay

82. **What Physical and Environmental Factors Contribute to Blowouts in the Monterey Bay Dune System, and is the Sand Primarily Sourced from the Beach or the Dunes?**
Raegan M. Schlueter, Shannon Sondeno, Maxwell Frantz, & James Guilinger, Ph.D.
Department of Applied Environmental Science, California State University, Monterey Bay

83. **Camera Trap and Live Trap Monitoring of Crop-Adjacent Wetlands to Evaluate Food Safety Risk**
Cozette F. Wood[1], Tyler A. Gianni[2], & Jennifer M. Duggan, Ph.D.[2]
[1]*Department, of Biology, Agriculture and Chemistry, California State University, Monterey Bay*
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DEPARTMENT OF BIOLOGY, AGRICULTURE AND CHEMISTRY

84. **Updating the Sebastes Phylogeny Using Ultraconserved Elements in the Genome**
Lezly T. Albro & S. Elizabeth Alter, Ph.D.
Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay

85. **Human Serum Albumin Interactions with Microplastics of Different Polymer Lengths**
Sharon R. Bahr & Arun K. Sharma, Ph.D.
Department of Biology, Agriculture, and Chemistry, California State University, Monterey Bay

86. **Comparing Laboratory Culturing Methods of Pesticide Remediating Bacteria for Dosing into Field Bioreactor Systems to Improve Species Evenness**
Jay M. Chalfant, Mary Snook, Dailyn E. Jones, Efrain Guillen, Maurico Lara, Rukmini Raman, Elias Yevdash, & Nathaniel K. Jue, Ph.D.
Department of Biology, Agriculture, and Chemistry, California State University, Monterey Bay

87. **Investigating the Influence of Trace Metals on Calcium Carbonate Crystallization: A Model for Understanding Metal Pollution in Marine Environments**
John M. Collas & Roshini Ramachandran, Ph.D.
Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay

88. **A Comparison of the Gut Microbiomes of New Zealand Mud Snail, *Potamopyrgus antipodarum*, Before and After Exposure to Pesticide-Remediating Bacteria**
Efrain Guillen, Mary Snook, & Nathaniel Jue, Ph.D.
Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay

89. **Soil Health in Urban Agroecosystems: Enzymatic Activity and Inorganic Nitrogen in Community Gardens**
Gema Gomez[1], Jocelyn Rojas[2], Cyra Baradaran-Bybee[2], Brenda Morales[2], & Stacey Philpott, Ph.D.[2]
[1]Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay
[2]Department of Natural Sciences, University of California, Santa Cruz

90. **Optimization of PCR Amplification Using Riaz 12S Primers by Minimizing Primer Dimer Formation**
Keishi Koshikawa, Kaitlyn E. Martinez, & Elizabeth Alter, Ph.D.
Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay

91. **Measuring Leaf Hydraulic Conductance Using the Evaporative Flux Method (EFM) to Evaluate Plant Water Transport and Drought Response**
Ralph R. Trujillo, Manuel Venanzio-Guzman, Lydia Mattsson-Bozman, Jonathan Jaime, Ignacio Maravilla, Oscar Rodriguez, Jason Morris, Javier Blanco Ortegas, & Caetano Albuquerque Ph.D.
Department of Biology, Agriculture and Chemistry, California State University, Monterey Bay

DEPARTMENT OF MARINE SCIENCE

92. **Shell We Compare? Changes in Black Abalone (*Haliotis cracherodii*) Size Structure and Density Between 2002 and 2019**
Laine Beardsley[1], **Kai McEntee**[1], Addison Ryne[2], & Alison Haupt, Ph.D.[1]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Moss Landing Marine Laboratories, San José State University

93. **Increasing the Range and Accuracy of a Remote Shark Tag Relay Station**
Novallyn Bremberg & Salvador J. Jorgensen, Ph.D.
Department of Marine Science, California State University, Monterey Bay

94. **Optimizing RNA Quality from the Scleractinian Coral *Pavona clavus* via Secondary Column Purification**
Isabella Chan[1,2], Rebecca D. Jatnieks[1,2], Matthew Brittain[3], Emma Saso[1,4], & Cheryl A. Logan, Ph.D.[1]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Department of Mathematics and Statistics, California State University, Monterey Bay
[3]Gavilan College
[4]Moss Landing Marine Laboratories, San José State University

95. **Effect of Body Size on Metal Uptake in Animals from Elkhorn Slough**
Riley Guttadauro[1], Cristian Martinez[2], & Amanda Kahn, Ph.D.[2]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Moss Landing Marine Laboratories, San José State University

96. **Understanding Conspecific Aggression among Great White Sharks (*Carcharodon carcharias*)**
Gabriella C. Hamilton, Alyssa Walter, Michael Torrisi, & Salvador Jorgensen, Ph.D.
Department of Marine Science, California State University, Monterey Bay

97. **Functional Algal Groups as Drivers of Pisaster Across the Monterey Bay Rocky Intertidal**
Kianna Kahn & Alison Haupt, Ph.D.
Department of Marine Science, California State University, Monterey Bay

98. **Optimizing the RNA Extraction Protocol on Preserved *Pavona clavus* Samples**
Rebecca D. Jatnieks[1,2], Isabella Chan,[1,2], Matthew Brittain[3], Emma Saso[4], & Cheryl A. Logan, Ph.D.[1]
[1]Department of Marine Science, California State University, Monterey Bay
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[3]Gavilan College
[4]Moss Landing Marine Laboratories, San José State University

99. **Presence of Digenean Trematode Parasites in *Littorina* Snails**
Reece T. Lawlor, **Charlie N. Ohlund**, & Gerick Bergsma, Ph.D.
Department of Marine Science, California State University, Monterey Bay

100. **Effects of Sea Star Wasting Disease on the Size Structure of Ochre Stars (*Pisaster ochraceus*)**
Melany S. Menezes[1], **Jamie Chewning[1]**, Addison Ryne[2], & Alison J. Haupt, Ph.D.[1,2]
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101. **A Cross-Comparative Study of the Size Structure of Sea Urchin Populations on the Monterey Peninsula**
Jackson Mytnik[1], Addison Ryne[2], & Alison Haupt, Ph.D.[1,2]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Moss Landing Marine Laboratories, San José State University

102. **Thermal Limits and Spatial Distributions of Sponges in Relation to Hydrothermal Vents of the Juan de Fuca Ridge**
Santiago P. Oceguera[1] & Amanda S. Kahn, Ph.D.[2]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Moss Landing Marine Laboratories, San José State University

103. **No Shucking Around: Using Conservation Aquaculture to Restore Olympia Oysters in Elkhorn Slough**
Katie Rudis[1], **Madeline Chernis[1]**, Kai Rooney, M.S.[2], & Alison Haupt, Ph.D.[1,2]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Department of Applied Environmental Science, California State University, Monterey Bay

104. Hydrothermal Vent Macrofaunal Communities at the Cleft Segment of the Juan de Fuca Ridge (JdFR)
Vincent Salazar[1], Ilaria Bardini[2], & Amanda S. Kahn, Ph.D.[2]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Moss Landing Marine Laboratories, San José State University*

105. The Diet of Risso's Dolphins: A Global Review of Stomach Contents
Kate Tinney[1], Jeremy Goldbogen[2], & Ilias Foskolos, Ph.D.[2,3]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Oceans Department, Stanford University*
[3]*Department of Biology, Aarhus University*

106. Prey Handling Scars Incurred by White Sharks Reveal Size and Sex-Based Differences in Foraging Patterns
Michael Torrisi[1], Alyssa Walter[1], Kaitlyn Yee[1], Scot D. Anderson[2], Samantha Andrzejaczek[3], Barbara A. Block, Ph.D.[3], Taylor K. Chapple[234], Alexandra DiGiacomo[3], Paul E. Kanive[3], & Salvador J Jorgensen, Ph.D.[1]
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[2]*California White Shark Project*
[3]*Hopkins Marine Station, Stanford University*
[4]*Coastal Oregon Marine Experiment Station, Oregon State University*

107. Effect of Temperature on Feeding Rates of Olympia Oysters (*Ostrea lurida*)
Jonatha E. Varela[1], Amadeo B. Scott[2], & Amanda S. Kahn, Ph.D.[2]
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[2]Moss Landing Marine Laboratories, San José State University

108. Understanding the Recovery of Black Abalone (*Haliotis cracherodii)* Across the Monterey Peninsula
Emma C. Weiand[1], Addison Ryne[2], & Alison J. Haupt, Ph.D.[1]
[1]*Department of Marine Science, California State University, Monterey Bay*
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109. Using SfM Photogrammetry to Measure the Surface Area of *Pocillopora* spp. Coral Fragments
Challis Weiss[1], **Matthew Brittain**[2], Ava Besecker[1,3], Emma Saso[1,3], & Cheryl A. Logan, Ph.D.[1]
[1]*Department of Marine Science, California State University, Monterey Bay*
[2]*Biology Department, Gavilan College*
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110. A Comparative Evaluation of Sedimentation and Flotation Techniques for the Identification of Trematode Ova in Monterey Shorebirds
Katherine White[1] & Gerick Bergsma, Ph.D.[2]
[1]*Department of Biology, Agriculture, and Chemistry, California State University, Monterey Bay*
[2]*Department of Marine Science, California State University, Monterey Bay*

111. **Optimizing *S. Purpuratus* Gonad and Digestive Tissue RNA Extractions**
Marissa K. White[1], Kayla Vidal[2], Nathan B Spindel, Ph.D.[1,2], & Cheryl Logan, Ph.D.[1]
[1]Department of Marine Science, California State University, Monterey Bay
[2]Moss Landing Marine Laboratories, San José State University

DEPARTMENT OF MATHEMATICS AND STATISTICS

112. **Explaining Failure: Attributions for Mathematics Struggle, Avoidance, and Incapability in Reddit Discourse**
Navid Khosravi Amarlou[1], **Christopher Rodriguez**[1], & Gabriel Chavez[2]
[1]Department of Psychology, California State University, Monterey Bay
[2]Department of Mathematics, Arizona State University

113. **Authority in Data Science Classrooms: Who Benefits from Pair Programming Protocol?**
Grey Cabot[1] & Judith Canner, Ph.D.[2]
[1]Department of Psychology, California State University, Monterey Bay
[2]Department of Statistics and Mathematics, California State University, Monterey Bay

114. **Are Skew Schur These Functions are Equal?**
Violeta C. Dentinger, **Yotam Nahir Konigstein**, Peri Shereen, Ph.D., & Jeffrey Wand, Ph.D.
Department of Mathematics and Statistics, California State University, Monterey Bay

115. **Self Reported Adherence and Observer Perceived Adherence in Data Science Pair Programming**
Anthony Flores & Judith Canner, Ph.D.
Mathematics and Statistics Department, California State University, Monterey Bay

116. **Confidence in Collaborations: Authority and Power in Data Science**
Rachel M. Jones[1] & Judith E. Canner, Ph.D.[2]
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117. **Market Value, Position, and Performance in Professional Soccer**
Yaretzy Medina Gallo & Steven Kim, Ph.D.
Department of Mathematics and Statistics, California State University, Monterey Bay

118. **Outside Sources and Pair Programming Dynamics in Data Science**
Samuel Mier & Judith Canner, Ph.D.
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119. Perceived Lack of Understanding and Idea Dismissal in Data Science Pair Programming
Levi Redfearn[1,2] & Judith Canner, Ph.D.[3]
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120. A Posterior-Driven Bayesian Adaptive Design for Dose-Finding in Phase I Clinical Trials
Marcos Palominos & Steven Kim, Ph.D.
Department of Mathematics and Statistics, California State University, Monterey Bay

DEPARTMENT OF MECHATRONICS ENGINEERING

121. Polymer Composite Materials from Agricultural Waste
Selvedin Kurtic & Luis Cabrales, Ph.D.
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122. Improving Code-Based Correlation Analysis for Evaluating Almond Tree Health Using Remote-Sensing Data
Devyn Korman & Hayou Niu, Ph.D.
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123. Development of a Modular Differential-Drive Robotic Platform for Agricultural Research
Shane M. Martinez, A.S. & Prashanta Pokharel, Ph.D.
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124. Solar Power Management System for Small Autonomous Robotic Vehicles
Cayden Sessions & Prashanta Pokharel, Ph.D.
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125. Development of a Control and Data Acquisition System for Linear Motion Sprayer Test Fixture
John H. Tkoch & Prashanta Pokharel, Ph.D.
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SCHOOL OF COMPUTING AND DESIGN

126. How Much Trust Can We Place in AI's Logic? Evaluating LLMs on Fermi Problems
Shannyn Cabi, **Jacob Banducci**, & Dongji Feng, Ph.D.
School of Computing and Design, California State University, Monterey Bay

127. Teaching Complex Computer Science Concepts through Near-Peer Mentoring
Rian Hassett & Joshua Gross, Ph.D.
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128. Investigating the Impact of Gamification on K-12 Students' Engagement, Cognitive Load, and Comprehension of Complex Academic Subjects
Achsah M. Jojo & Amir Attia, Ph.D.
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129. Expanding Frankenweb to Visualize the Environmental Impact of Algorithm Efficiency
Ann T. Jojo & Joshua B. Gross, Ph.D.
School of Computing and Design, California State University, Monterey Bay

130. A Web-Based Application to Design and Visualize Program Curricula Around Learning Outcome Dependencies
Douglas McDonald, **Jake Walton**, Paul Conner, & Shahidul Islam, Ph.D.
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UNIVERSITY COLLEGE

SERVICE LEARNING INSTITUTE

131. Rooted in Quechua Ancestry: Exploring Indigenous Ways of Knowing and Amazonian Sovereignty
Lucia Patricia Torre[1] & Chrissy Hernandez, Ph.D.[2]
[1]*Department of Health, Human Services, and Public Policy, California State University, Monterey Bay*
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TANIMURA AND ANTLE LIBRARY

132. Enhancing Academic Libraries Through an Understanding of College Students' Needs: A Literature Review
Kiaya Rowlett[1] & Jeff Corrigan, M.A.[2]
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JUDGES

Special thanks to all the judges for their time & expertise judging the poster session.

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