# The California Mathematics Council, Community Colleges 

## 47th Annual Fall Conference



## December 6-7, 2019

Hyatt Regency Monterey, Monterey, CA
www.cmc3.org
Like us on Facebook and follow us on Twitter and keep up-to-date with $\mathrm{CMC}^{3}$, our Foundation, regional math conferences and Friday comics.
www.facebook.com/cmc.cubed/
www.twitter.com/CMC3N



## Welcome to the 47 ${ }^{\text {th }}$ Annual Fall Conference!

## The Hyatt Regency Monterey



The event organizers are people just like you from various community college mathematics departments across Northern California. We are always looking for more eager volunteers with new ideas. Please consider getting involved with $\mathrm{CMC}^{3}$ by contacting a board member any time. Enjoy the conference!

The California Mathematics Council Community Colleges Foundation annually provides scholarships to honor our mathematics and science students. We need your financial help. We rely on your generosity and donations to fund the Scholarship Program.

Please consider making a donation to our CMC ${ }^{3}$ Foundation Scholarship Fund. Contributions are tax-deductible, as provided by law. Our tax ID \# is 94-3227552.

Please donate in-person at the Foundation table!

# CMC ${ }^{3}$ Board and Conference Committee 

| President: | Katia Fuchs | Membership Chair: | Kevin Brewer |
| :--- | :--- | :--- | :--- |
| Past-President: | Joe Conrad | Business Liaison: | Dean Gooch |
| Pres.-Elect (Conf. Chair): | Jennifer Carlin-Goldberg | Newsletter Editor: | Jay Lehmann* |
| Treasurer: | Leslie Banta | Estimation Walk/Run: | Jay Lehmann* |
| Secretary: | Tracey Jackson | Student Posters: | James Sullivan |
| MAA Liaison: | Wade Ellis | Web Page Manager: | Darryl Allen |
| Tahoe Speaker Chair: | Katia Fuchs | Foundation President: James Sullivan |  |
| A/V Co-chair: | Larry Green | Foundation Member: | Joe Conrad |
| A/V Co-chair: | Steve Blasberg* | Foundation Member: | Casey Terrill |
| Social Media Coordinator: Cortney Schultz | Awards Chair: | Manny Kang |  |

## CMC ${ }^{3}$ Presidents

| $1973-1974$ | James Curl | Modesto Junior College |
| :--- | :--- | :--- |
| $1974-1977$ | Raymond Wuco | San Joaquin Delta College |
| $1978-1979$ | Brandon Wheeler | Sacramento City College |
| $1980-1981$ | Hal Andersen | Santa Rosa Junior College |
| $1982-1983$ | Art Dull | Diablo Valley College |
| $1984-1985$ | Pat Boyle | Santa Rosa Junior College |
| $1986-1987$ | Shirley Trembley | Bakersfield College |
| $1988-1989$ | Wade Ellis, Jr. | West Valley College |
| $1990-1991$ | Denny Burzynski | West Valley College |
| $1992-1993$ | Barry Wood | Santa Rosa Junior College |
| $1994-1995$ | Debra Landre | San Joaquin Delta College |
| $1996-1997$ | Chris Burditt | Napa Valley College |
| $1998-1999$ | Michael Eurgubian | Santa Rosa Junior College |
| $2000-2001$ | Lois Yamakoshi | Los Medanos College |
| $2002-2003$ | Randy Taylor | Las Positas College |
| $2004-2005$ | Rick Hough | Skyline College |
| $2006-2007$ | Rob Knight | Evergreen Valley College |
| $2008-2009$ | Larry Green | Lake Tahoe Community College |
| $2010-2011$ | Barbara Illowsky | De Anza College |
| $2012-2013$ | Susanna Gunther | Solano Community College |
| $2014-2015$ | Mark Harbison | Sacramento City College |
| $2016-2017$ | Joseph Conrad | Solano Community College |
| $2018-$ Present | Katia Fuchs | San Francisco City College |

Past CMC ${ }^{3}$ President's Awardees (selected by the $\mathrm{CMC}^{3}$ President)

Barry Wood
Chris Barker
Noelle Eckley
Barbara Illowsky
Zwi Reznik
Sandi Nieto
Randy Taylor
Mark Harbison
Jim Spencer
Robert Knight
Larry Green
Michael Eurgubian
Ken Seydel
Rebecca Fouquette
Jay Lehmann
Leslie Banta
Larry Green
James Sullivan

Santa Rosa Junior College
De Anza College
Lassen College
De Anza College
Fresno City College
Santa Rosa Junior College
Las Positas College
Sacramento City College
Santa Rosa Junior College
Evergreen Valley College
Lake Tahoe Community College
Santa Rosa Junior College
Skyline College
De Anza College
College of San Mateo
Mendocino College
Lake Tahoe Community College
Solano Community College

Past CMC ${ }^{3}$ Distinguished Service Awardees (selected by the CMC $^{3}$ board)

Ray Wuco
Frank Denney
Wade Ellis, Jr.
Brandon Wheeler
Patrick Boyle
Arthur Dull
Hal Andersen
Sister Clarice Sparkman
James Curl
Guy De Primo
Allen Utterback
Barry Wood
Denny Burzynski
Chris Burditt
Wei Jen Harrison
Marilyn McBride
Michael Eurgubian
Lois Yamakoshi
Debra Landre
Dave Johnson
Chris Barker
Rick Hough
Jim Spencer
Randy Taylor
Cynthia Speed

San Joaquin Delta College
Chabot College
West Valley College
Sacramento City College
Santa Rosa Junior College
Diablo Valley College
Santa Rosa Junior College
San Jose City College
Modesto Junior College
City College of San Francisco
Cabrillo College
Santa Rosa Junior College
West Valley College
Napa Valley College
American River College
Skyline College
Santa Rosa Junior College
Los Medanos College
San Joaquin Delta College
Diablo Valley College
De Anza College
Skyline College
Santa Rosa Junior College
Las Positas College
Mendocino College

## Past CMC ${ }^{3}$ Distinguished Service Awardees (continued)

| 2013 | Rob Knight | Evergreen Valley College |
| :--- | :--- | :--- |
| 2014 | Barbara Illowsky | De Anza College |
| 2015 | Noelle Eckley | Lassen Community College |
| 2016 | Debbie VanSickle | Sacramento City College |
| 2017 | Susanna Gunther | Solano Community College |
| 2018 | Rebecca Fouquette | De Anza College |

## 2019 - Marcela Laddon

I was born and raised in coastal California, the daughter of an engineer and the granddaughter of the man who designed the B-24 Liberator, the most mass produced airplane of World War II. I went to college at UCSC in the 1960s. I took Political Science and Sociology classes and occupied myself with throwing the tear gas canisters back at the police while demonstrating against the war in Vietnam. By a lucky chance, I ended up in a math course taught by Ed Landesman that changed my path. I received a BA in Mathematics from UCSC. After a few years I went to San Francisco State where I earned my Masters Degree.
What I no longer remember is exactly what I did with CMC3, nor when I did it. I know that I started attending the conferences in 1980 when I took the teaching job at MPC. Starting in 1976 I attended the CMC conferences at Asilomar every year. When I first came on the CMC3 board, maybe in the 1990s, I was the CMC liaison. After I began teaching at Cabrillo College, in 2000 or so, I became the AMATYC liaison. There were a few years when I was in charge of the speakers for the Tahoe conference.
I was a math teacher for 35 years, 20 of them in Monterey, and 15 of them in Santa Cruz. I retired in 2013. Retirement is a blast! I snowboard, swim, ride my ebike, make wine with friends and generally enjoy life. I have had the health and luck to travel. Like many other people of my age, I am also watching my friends and family die off. So each day is bittersweet and I am grateful to be on the planet and to watch the sunrise from the swimming pool. Thank you for continuing to run the best organization for community college teachers! I learned a lot at all the conferences I attended.
Since retiring, I married my partner of 38 years, saw our daughter graduate from UC Hastings Law school, celebrated a 90th birthday of a relative in Tel Aviv, celebrated a 60th birthday of a friend in Bordeaux, made my first (and hopefully not last) trip to the Caribbean, went snorkeling in Hawaii. Not bad, eh?

ACADEMIC SENATE FOR CALIFORNIA COMMUNITY COLLEGES

## Unlocking Access to Knowledge

The mission of the ASCCC OERI is to reduce the cost of educational resources for students by expanding the availability and adoption of high-quality OER. OERI facilitates and coordinates the curation and development of OER texts, ancillaries, and support systems.

Visit our table to experience our petting zoo or learn more at tinyurl.com/ASCCC-OpenEd.

## CONFERENCE PROGRAM - FRIDAY

4:30-6:30 pm Registration

7:00-8:00 pm Dessert Reception
8:00-9:00 pm
Keynote

Regency Foyer

Regency IV - VI
Regency IV - VI

| Dr. Omayra Ortega, Sonoma State University |
| :---: |
| omayra.ortega@sonoma.edu |

9:00 pm - 11:00 PM
Cypress
Game Night!
Fill your Friday evening with fun, food and friends! We will have games, puzzles, and other activities. There will be hors d'oeuvres and a No-Host Bar. Thank you Cengage for your help in putting on this event! Join us!

## CONFERENCE PROGRAM - SATURDAY

8:15 am - 10:00 am
8:30 am - 1:00 pm,
2:00 pm - $5: 15 \mathrm{pm}$

Estimation Walk/Run
Registration
Exhibits open

Meet by the Front Desk
Regency Foyer
Regency Foyer

## First Session: 9:00-10:00 am

Spyglass

## Daniel Haiem

## The Lesser Known Digital Tools That Revolutionized My Teaching Experience

From Khan Academy to clickers, the most ubiquitous tools are certainly helpful and make for a better, more efficient teaching experience. This discussion, however, will dive deeper into some of the lesser-known tools and resources, such as the YouTube channel, 3Blue1Brown, the calculator, ClassCalc and the polling service, Poll.ly.

Big Sur
Jillian Kimzey
(Pedagogy/Basic Skills)
Sacramento State University jillian.kimzey@gmail.com

In a time when Inquiry Based Learning is becoming more popular in the US, I will look at the Hungarian Posa Method, drawing on my own experience with Budapest Semesters in Mathematics Education. This method named after its creator Lajos Posa depends on interrelated problem sets to learn mathematical concepts.

## Cypress <br> Jon Blakely <br> College of the Sequoias <br> (Potpourri/Precalc and above) <br> I made Homework worth $70 \%$ of the grade and here's what happened

With the dawn of AB705 looming, I had a chance to try something as outlandish as making the $70 \%$ of the course grade based solely on homework. The results were so shocking that I had to tell someone, anyone. We will take a look at the results.

## Regency IV <br> Barbara Illowsky Michelson 20MM Foundation

(OER/AB 705)
illowskybarbara@fhda.edu

## OER and ZTC: Ways to Remove a Barrier to Student Success!

OER, ZTC, OERCommons... You've probably heard a lot about textbook affordability. Come learn how we can and have been collaborating across the state and country in reducing textbook costs and increasing student success for our CCC students. Learn about degrees that students can earn without paying for materials, how you can create and share materials, and how students are assisting in this issue.

## Regency V

Charles S. Barnett
( $n>1$ )-Sample vs ( $n=1$ )-Sample Contests
Consider two contests. How often does an ( $n>1$ )-sample come closer to the mean than an ( $n=1$ )-sample? How often will a
"superior" random variable reveal itself when up against ( $n>1$ ) "inferiors"? Monte Carlo calculations on a graphing calculator illustrate the results. Bring one if you wish to convince yourself.

## (Statistics)

[^0].

## First Session: 9:00-10:00 am, continued

## Regency VI

Trey Cox
(Student Support/Equity)
Chandler-Gilbert Community College
trey.cox@cgc.edu

## M \& M's: Making Mathematics Meaningful, Motivational, and Mental

Do your students say things like, "I HATE word problems!", "I can do the 'regular' problems.", "I get confused when I see all the words, I don't know where to start!"? Come learn some powerful strategies to help make math meaningful, motivational, and mental!

Reminders:

8:30 am - 1:00 pm \& 2:00 pm - 5:15 pm Exhibits open
Regency Foyer

## 9:30 am - 1:00 pm <br> Student Posters on Display <br> Regency Foyer

The American Mathematics Association of Two-Year Colleges (AMATYC) will hold their next annual conference in Spokane, WA on November 12-15, 2020.

Conference Theme: 2020 Vision For The Future


Just Announced, the 2025 AMATYC Conference will be in Reno, NV!


## Second Session: 10:30-11:30 am

# Spyglass <br> Rob Knight <br> Evergreen Valley College <br> (Technology) <br> robert.knight@evc.edu <br> MyPhotoRoster: A free means by which you can create a photo based roster for your classes 

With MyPhotoRoster use can your smartphone to create confidential PDFs of your classes student photos so that you will instantly be able to call on students by name. MyPhotoRoster is also great for online course student identification security during Finals, etc. Bring your smartphone and you will leave this presentation able to use MyPhotoRoster for all your classes.

## Big Sur <br> Pat McKeague

## XYZ Textbooks and MathTV.com

(Pedagogy/Basic Skills)

## A Spiritual Side to Mathematics?

Can the patterns and connections in mathematics strengthen our spiritual perspective? You will judge for yourself. We start with a simple sequence of numbers and end with fractals and chaos. Along the way we meet philosophers and mathematicians from Fibonacci and Paul Halmos, to Pascal and Stephen Hawking.

## Cypress <br> Jeff Anderson <br> Foothill College <br> (Potpourri/Precalc and above) <br> Electrify the Linear Systems Problem

We will share a new learning exercise that empowers students to model a useful real-world problem using linear-systems theory. Specifically, we demonstrate how to build physical electric circuits and how students can analyze these circuits with nonsingular matrices. This activity prepares students to apply linear-algebraic techniques to real-world problems.

> | > { Regency IV } |  | (OER/AB 705) |
| :---: | :---: | :---: |
| > Larry Green \& | Lake Tahoe Community College | drLarryGreen@gmail.com |
| > Cindy Moss | Skyline Community College | moss@smccd.edu |
| > AB 705 Support Courses with Open Educational Resources |  |  |
| > { and MyOpenMath }> |  |  |

We will talk about how to use OER and MyOpenMath to support students as they work to succeed in their transfer level courses. Included are OER videos, textbooks and homework sets that are flexible enough to be used for test generators. Attendees will share strategies they feel are effective.

## Second Session: 10:30-11:30 am, continued

## Regency V

Kevin Brewer

Solano Community College
Using Bayesian Statistics
to Understand Frequentist Confidence Intervals

Introductory Statistics textbooks present a theory of statistical inference built around the concept of frequency probability. But most (all?) textbook writers stray from the official view at various points. The best way to understand inference in frequentist statistics is by way of contrast with a competing theory - Bayesian statistics. This talk will summarize some of the main points of Bayesian statistics: subjective probability, using Bayes' Theorem with discreet and continuous priors, and Bayesian credible intervals. The talk will touch on both mathematical and philosophical details and differences between frequentist and Bayesian statistics. By the end I hope to have convinced you to be at least a little skeptical of the standard interpretation of a confidence interval which our textbooks present, namely that "we are 95\% confident that the interval contains the parameter."

## Regency VI <br> Moderator: James Sullivan <br> Sierra College Student Poster Presentations <br> In this session, students will present their posters for the Student Poster Contest. Please come and support our students! <br> (Student Posters) <br> jsullivan@sierracollege.edu

## Luncheon: 11:45 am-12:30 pm

11:45 am - 12:30 pm Buffet (tickets required)
Regency Main
(Mention to one of the servers if you have special dietary needs not met by the buffet.)

## General Session: 12:30-2:15 pm

12:30-1:15 pm
$1: 15-2: 15 \mathrm{pm}$
kbrewer@solano.edu

## (Statistics)

| Regency VI | (Student Posters) |
| :---: | :---: |
| Moderator: James Sullivan | Sierra College |
| Student Poster Presentations |  |
| jsullivan@sierracollege.edu |  |
| In this session, students will present their posters for the Student Poster Contest. Please come and support our students! |  |

## * CENGAGE WEBASSIGN

## Create the Path to Student Success

Built by educators, WebAssign provides instructors the tools needed to empower confident, self-sufficient learners. Students get quality content in an affordable solution that is deeply flexible, enabling the instructor to customize each course to the different ways students learn. Proven to help hone problem-solving and critical-thinking skills, WebAssign helps teachers help learners.


## The Right Content at the Right Time

- Time-tested, expertly designed content delivered in curated, pre-built course packs mapped to learning objectives across the corequisite course spectrum fuels deeper learning for all learning styles
- Downloadable worksheets make it easy for students to get practice on their prerequisite Math skills
- Address non-math obstacles to student success with assignable College Success modules from study skills to communication


## Flexibility at Every Step

- Use conditional release to determine the learning path based on student mastery of prerequisite content
- Customize the learning experience to meet any teaching style and build problem-solving and critical-thinking skills
- Easy course set-up simplifies access to all materials in one place, including ebooks, lecture videos and assignments or both the credit and developmental coursework


## Third Session: 2:30-3:30 dm

Spyglass<br>Philip Magner California State University, Stanislaus<br>(Technology)<br>\section*{Code, Code, Send Rover Right Over!!!}

No, this isn't the old recess game you learn at the elementary play yard. Let's write the code in the TI Nspire handheld that will send the Rover to the desired position. Will it break through the barrier? Come and find out.

Big Sur
Roy Simpson
Video Series Creation - A Professional Approach
With over a decade of video creation experience and nearly 300 videos on YouTube, I share my strategies (and mistakes) of creating the top video remediation series for mathematics.

# Cypress <br> Carol Keig <br> Sonoma State University <br> keigc@sonoma.edu 

## Intro to Regression: Fun From Day One

My freshmen college students struggle with questioning their own results. This fun, first-to-third day activity drives home the potential problems with extrapolation and sets the stage for moving past rote procedures and into analysis.

Regency IV
Sid Grover Using an affordable, user-friendly, textbook-agnostic homework system to reach every student
We present case studies showcasing educators who developed low-cost online homework using Edfinity, an open, WeBWorK-compatible homework system supported by the NSF. Using Edfinity, educators assembled 'textbook-agnostic' homework with peer-reviewed problems mapped to publisher and OER textbooks, thereby 'unbundling' expensive textbook/homework bundles, lowering student costs, and dramatically increasing access.

## Regency V

## Allan Rossman Cal Poly-San Luis Obispo arossman@calpoly.edu Teaching Introductory Statistics: Ask Good Questions

I will present questions that help students to learn introductory statistics. These questions follow GAISE recommendations about teaching statistical thinking, emphasizing conceptual understanding, using real data, and making effective use of technology. Both in-class activities and summative assessments will be included, some of which use freely available interactive applets.

# Regency VI <br> Leslie Banta 

## Promoting Equity Through Course Materials

Would you like to make a lifetime of difference for your students? Whether you have students in a standard course or in a co-requisite support course, working towards equity can make all the difference. In this session, we will look at what equity means and how we can promote equity in our own classrooms by revising our course materials with an equityminded lens.

## CMC ${ }^{3}$ Needs You!

## Because YOU are the lifeblood of CMC ${ }^{3}$

$\mathrm{CMC}^{3}$ has a long tradition of supporting Community College Math faculty and students. This work cannot be done without you.

We want to hear your voice! We want to hear your voice in our Newsletters, at our Conferences, and in our Board Meetings.

For more information on how you can become involved, please head to: http://www.cmc3.org Or contact Katia Fuchs at efuchs@ccsf.edu

## ClassCalc Lockdown Calculator

Get rid of your Tls • Save Money • Promote Equity • Increase Accessibility


Free calculator at classcalc.com/graphing

1) Start Test Mode lockdown with your class
2) Student phones get locked onto ClassCalc:
$\otimes$ No cheating or distractions.
$\star$ No other apps, calls or texts
Only ClassCalc calculator


A
t Wiley. you'll find a pride of craftsmanship. dedication to the educational process that is unique among publishers.

We invite you to come by the Wiley booth to see some of our latest titles. You can also try a hands-on demo of WileyPLUS, our popular online teaching and learning environment.

## We hope to see you at the booth!

## SPECIAL THANKS TO ...

*Santa Rosa Junior College
[printing and postage]

* AMATYC
[tote bags]
* Cengage
[Friday "Game Night"]
* All of our Door Prize and Foundation Donors!

| Thanks to our Exhibitors! |  |
| :--- | :--- |
|  |  |
| CMC $^{3}$ Foundation | Cengage |
| Texas Instruments | Hawkes Learning |
| ClassCalc | XYZ Textbooks |
| Derivita | OERI |
| WileyPLUS |  |


-iik Texas
Please Stop By the Texas Instruments Booth


# Cypress <br> Jen Carlin-Goldberg Let's Discuss AB 705 Research and Implementation 

This is the first year of full $A B 705$ placement and curriculum implementation. We must gather data in order to make adjustments to implementation and to measure the success and failure rates of our students. Our departments and institutions have different approaches to this. Please join us for a roundtable discussion where we will share our ideas.

Regency IV<br>Cindy Enrigue \& Natalie De Moss<br>Long Beach City College Long Beach City College<br>(OER/AB 705)<br>cenrigue@lbcc.edu ndemoss@lbcc.edu<br>\section*{OER + AB705 = Department Redesign}

The Math Department at Long Beach City College has been diligently working on incorporating OER materials into the curriculum as well as creating Co-Requisite courses that satisfy AB705 guidelines. LBCC has launched four new co-requisite courses for Fall 2019 and has established a community of practice.

## Regency V

Chantal Cimmiyotti Mendocino College

## Adjunct Advocate Workshop

This is a workshop-style session, where adjunct faculty can get advice and/or feedback on the various components of the full-time application/interview process. It will include stations regarding interview questions, resumes, cover letters, supplemental question responses, and teaching demonstrations. Please consider bringing a current or past application materials and/or preparing a 10-min. teaching/activity demonstration.

We know from research that there is an achievement gap in post-secondary mathematics education. Research also indicates that metacognitive instruction can positively impact students mathematical abilities. The development of metacognitive skills and knowledge may be one vehicle through which we can close the equity gap in mathematics education.

5:00-6:00 pm Foundation Drawing 6:00pm - Midnight Free shuttle downtown <br> \title{
Regency VI <br> \title{
Regency VI <br> Abigail Higgins \& California State University, Sacramento Justin C. Dunton California State University, Sacramento Metacognition and Mathematics Education: Implications on Equity <br> (Student Support/Equity)
}

| Abigail Higgins \& | California State University, Sacramento abigail.higgins@csus. |  |
| :--- | :--- | :--- |
| Justin C. Dunton | California State University, Sacramento | justindunton@csus.e |
| Metacognition and Mathematics Education: Implications on Equit |  |  |

Regency Foyer
Conference Center Entrance
(Workshop)
ccimmiyotti@mendocino.edu

## Mark Your Calendar!



CMC ${ }^{3}$ 24 ${ }^{\text {th }}$ Annual Recreational Mathematics Conference Fri., April 24 to Sat., April 25, 2020 Lake Tahoe Community College
~NOTES~
~NOTES~


The CMC ${ }^{3}$ Foundation would like to acknowledge the following individuals and organizations for their generous cash donations to the Scholarship Fund during the fiscal year July 1, 2018 to June 30, 2019.



[^0]:    $\qquad$

