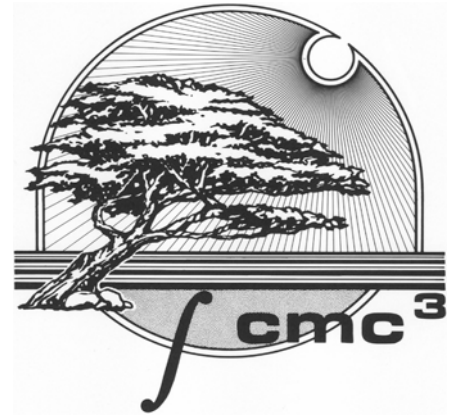


**The California Mathematics Council,
Community Colleges**



14th Annual Recreational Mathematics Conference

**April 30 – May 1, 2010
MontBleu Hotel and Casino
Stateline, Nevada**



OFFICIAL CONFERENCE PROGRAM

FRIDAY CONFERENCE PROGRAM

REGISTRATION
GAMING DEMONSTRATION

4:00-6:30 p.m.
5:00-6:00 p.m.

COSMO B
CASINO FLOOR

**HAPPY HOUR (HOSTED BY PEARSON EDUCATION) AND
FRIDAY KEYNOTE**

**6:30-9:00 p.m.
COSMO B**

**Allan Ackerman, College of Southern Nevada
“Mathamagic”**

This is a mathematical magic show. Mind-blowing effects using the commutative law of addition, the Pigeonhole Principle, a.k.a. Dirichlet's Box, the binary number system, and mathematical induction will be presented. Several topics from gaming will also be demonstrated. Several effects will be taught that are simple enough to be used in the classroom

SATURDAY CONFERENCE AT-A-GLANCE

	Session 1 9:00 – 10:00	Session 2 10:30 – 11:30	Session 3 2:30 – 3:30	Session 4 4:00 – 5:00
Metro A	Jennifer Mogel Weird Word Problems	Scott Anin and Larry Davis Competitions to Build a Community of Problem Solvers	John Thoo Look Ma: “ No Equations!”	
Metro B	Joel Siegal, How to Win at Roulette	Don Hutchison, Expected Return as a Function of Time (and Space)	Rick Hough and Michael Kinter Using Math to Know When to Hold ‘Em and Know When to Fold ‘Em	
Metro C	Cora Neal This Title is False	Russ Reich, Write, Cut, Color, Fold, Spindle, and Mutilate	Ron Graham Mathematics of Juggling ... a Workshop	Lalu Simcik Bubbles, both Round and Square

SATURDAY CONFERENCE PROGRAM

REGISTRATION

8:30-10:00 a.m.

HOTEL LOBBY

SESSION ONE: 9:00 a.m. to 10:00 a.m.

Jennifer Mogel, UC Santa Cruz
“Weird Word Problems”

METRO A

My teaching style uses humor to keep students' interest. I have attempted to extend this style to exams and to show that you can use math everywhere. Sometimes this has worked, sometimes not. I have found and created some interesting twists to problems we normally use in math exams. We'll go through many of these word problems, see what worked and why, and also take a look at which problems were colossal failures! Bring your imaginations, suspend disbelief for just a little while, and prepare to work on a few very weird word problems.

Joel Siegal, Sierra College
“How to Win at Roulette”

METRO B

A general discussion of roulette including some historical strategies [legal and illegal] for beating the game as well as some casinos' [legal and illegal] approaches for winning will be presented. Then a mathematical analysis with some surprising results and some interesting math will be shown. Lastly, the way to win for sure (and legally) will be revealed.

Cora Neal, Sonoma State University
"This Title is False"

METRO C

In this talk I will share several of my favorite mathematical paradoxes with you. They represent a wide variety of fields and mathematical difficulty levels. Resolutions to the paradoxes will be presented if known. In some cases I will share the essence of the ongoing debate. My goal is to introduce you to at least one paradox you have not encountered before, and to provide some interesting things for you to think about.

SESSION TWO: 10:30 a.m. to 11:30 a.m.

Scott Anin and Larry Davis, CSU Fullerton
“Competitions to Build a Community of Problem Solvers”

METRO A

The American Mathematics Competitions (AMC) celebrates decades of delivering mathematics recreation and fun to high school students and avid problem-solvers alike. Steven Davis has created problems for the exams in this program for years, and Scott Anin has participated as a student, workshop leader, and now, textbook writer. In this talk, Scott and Steven will share mathematical gems and clever ideas contained in the exam problems from the past year and talk about how easy it is for you and your students, regardless of their education level, to get involved!

Don Hutchison, Clakamas College
“Expected Return as a Function of Time (and Space)”

METRO B

Having accepted that beating the casino is unlikely, how do you stretch your entertainment dollars? This presentation shows calculation of expected return for each casino game, but it goes further. It also develops the life expectancy, in time, of a relatively small bankroll for each game.

Russ Reich, Sierra Nevada College
“Write, Cut, Color, Fold, Spindle, and Mutilate!”

METRO C

This is a collection of liberal arts mathematics activities I have used over the years. I have used most of them for such a long time that I forgot from whom I stole them.

Lunch Break: 11:30 a.m. to 1:00 p.m.

Your voucher is good at any time, Friday through Sunday, April 30-May 2, 2010
at any of the MontBleu eating establishments

Keynote Presentation

1:00 p.m. - 2:15 p.m.

COSMO A

Ron Graham, UC San Diego

“Mathematics of Juggling”

Mathematics is often described as the science of patterns. Juggling can be thought of as the art of controlling patterns in time and space. In this talk I will describe some of the newly discovered connections between mathematics and juggling

SESSION THREE: 2:30 p.m. to 3:30 p.m.

John Thoo, Yuba College

“Look Ma: No Equations!”

METRO A

The writing of equations symbolically dates back only a few hundred years. We consider three of the most fundamental types of problems--- proportion, linear, and quadratic-- and how they were solved before there was a theory of equations, with examples from Egyptian, Babylonian, Indian, Chinese, and Arabic mathematics.

Rick Hough and Michael Kinter, Skyline College and Cuesta College

“Using Math to Know When to Hold ‘Em and Know When to Fold ‘Em”

(Two session long talk)

METRO B

Great poker players are not only skilled at reading their opponents but are also well-versed in mathematics, including statistics and game theory. Workshop participants will learn poker basics and statistical concepts that underlie optimal strategy. They will also have opportunities to apply what they’ve learned in a just-for-fun poker tournament.

Ron Graham, UC San Diego

METRO C

This is a continuation of the keynote talk. The speaker will hold a short workshop where non-jugglers can learn some of the basic juggling patterns.

**CMC³ wishes to express a Special “Thank You” to
Anna Vopalensky and the entire staff of the MontBleu Hotel and Casino!**

SESSION FOUR: 4:00 p.m. to 5:00 p.m.

Rick Hough and Michael Kinter, Skyline College and Cuesta College

“Using Math to Know When to Hold ‘Em and Know When to Fold ‘Em”

(Continued from Session Three)

METRO B

“Bubbles, Both Round and Square”

This talk is fun. The conclusions and connections between a corral, a rectangular box, and spherically optimized enclosures are simple and full of wonder. A bubble demonstration video is included. Participants will have the opportunity to practice their own bubble blowing techniques.

Interested in presenting a recreational mathematics talk at next year's conference? The presentation need only be focused on some interesting topic from mathematics, assuming the audience consists of people who enjoy mathematics, Contact LARRY GREEN (GreenL@ltcc.edu) or MICHAEL EURGUBIAN (meurgubian@santarosa.edu)

RECEPTION**5:00 - 6:00****COSMO B****CONFERENCE COMMITTEE**

Conference Coordinator
Program Chair
Registration
Treasurer

Larry Green
Michael Eurgubian
Joseph Conrad
Rebecca Fouquette

Lake Tahoe Community College
Santa Rosa Junior College
Solano College
Santa Rosa Junior College

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Cabrillo College
Mendocino College
West Valley College
Evergreen Valley College