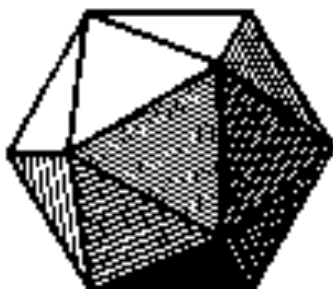


# **2011 Colorado Mathematics Awards**

**The 16th annual reception to recognize outstanding performance  
in national and international mathematics competitions  
by Colorado middle school, high school, and undergraduate college students.**



**Tuesday, May 10, 2011**

**4:15 – 7:00 p.m.**

**Grant-Humphreys Mansion  
770 Pennsylvania Street  
Denver, Colorado**

**DRAFT 4/24/2011**

# Program

4:15 – 5:00

Refreshments

5:00 – 6:30

Welcome: Dr. Richard Gibbs, CMA Co-Chair and Emeritus Prof. of Mathematics, Ft. Lewis College

Recognition of Underwriters: Dr. David Carlson, CMA Co-Chair and Resource Analyst, Colorado Department of Agriculture (retired)

Remarks: Dr. George Berzsenyi, Professor Emeritus of Mathematics, Rose-Hulman Institute of Technology, Terre Haute, Indiana

Presentation of Awards:

- **American Mathematics Contest 8:** presented by Mr. Howard Selbst, Falcon Creek MS, Aurora, and Colorado AMC 8 Director
- **MATHCOUNTS:** presented by Mr. Paul Gulman, P.E., and Ms. Noelle Cochran, P.E., National Society of Professional Engineers of Colorado, Co-Chairs, Colorado MATHCOUNTS Committee
- **American Mathematics Contests 10 and 12:** presented by Dr. David Larue, Colorado School of Mines, and Colorado AMC High School Director
- **Recognition of U.S.A. Mathematics Olympiad and Junior Olympiad Participants** by Dr. Gibbs
- **American Regions Mathematics League Colorado Team:** presented by Ms. Silva Chang, Director, Colorado Math Circle, Boulder
- **Rocky Mountain MAA Section Burton W. Jones Distinguished Teaching Award recipient, Professor Rich Bogdanovich, Aurora Community College; and Rocky Mountain MAA Section Distinguished Service Award (given every 5 years) recipient, Professor Hortensia Soto-Johnson, University of Northern Colorado:** recognized by Dr. Bill Cherowitzo, Chair, Rocky Mountain MAA Section
- **Mathematical Contest in Modeling:** presented by Dr. Bill Cherowitzo
- **William Lowell Putnam Mathematical Competition:** presented by Dr. Bill Cherowitzo

6:30 – 7:00

Refreshments

## Contributors

Patrons (\$500 - \$999): American Mathematics Competitions, CH2M HILL

Supporters (\$100 - \$499): CMA Steering Committee, National Society of Professional Engineers of Colorado, and the Mathematical Association of America (Rocky Mountain Section)

Steering Committee: Dr. Richard Gibbs and Dr. David Carlson, reception co-chairs; Ms. Silva Chang, Director, Colorado Math Circle, Boulder; Mr. Mario Scacco, Civil/Structural Group Leader, CH2M HILL; Mr. Paul Gulman, P.E., NSPE, Professional Engineers of Colorado; Dr. David Larue, Colorado School of Mines, Golden; Ms. Rhonda Naylor, Campus Middle School (ret.) and Past President, Colorado Council of Teachers of Mathematics, Englewood; Mr. Howard Selbst, Falcon Creek Middle School, Aurora; and Prof. Lou Talman, Dept. of Mathematics, Metropolitan State College of Denver.

Special thanks to: The Jewelry Works (Durango); Ms. Adrienne Sussman and Ms. Megan Castle, Governor's Office; Mr. Roche Verser, self-employed software engineer, photographer; and Judy Lerner Catering.

Contributions and other expressions of support for the Colorado Mathematics Awards (CMA) annual ceremony may be sent to: FLC Foundation, 1000 Rim Drive, Durango CO 81301-3911. Please write CO Math Awards on the memo line.

**Pictures of students and teacher-coaches may be viewed at: <http://cma.coloradomath.org>.**



## American Mathematics Contest 8

The AMC 8 is a 40-minute 25-question multiple choice contest given in school on the Tuesday the week before Thanksgiving. Students in 8th grade and below are eligible. In 2010, 153,000 students from 2,342 schools nationwide participated in the AMC 8. In Colorado, 1,400 Colorado students from 27 schools participated.

### AMC 8--Top Colorado Individual Winners (and Coaches)

- (1) **Zaki Phelan**, Leshar Middle School, Fort Collins (Janice Martinez)
- (1) **Jesse Zhang**, Southern Hills Middle School, Boulder (Tara Calloway)
- (3) **Christopher Chen**, Peak to Peak Charter School, Lafayette (Anita Chakraborty-Spotts)
- (3) **Christine Soh**, Summit Middle Charter School, Boulder (Ingrid Fotino)
- (3) **Avi Swartz**, Challenge School, Denver (Matt Bixby)

Top 6<sup>th</sup> grade student: **Avi Swartz**

### Honorable Mention (and Coaches)

**Nina Brown**, Southern Hills Middle School, Boulder (Tara Calloway); **Lubin Deng**, West Middle School, Littleton (Joanne Parkhouse); **T.J. Leing**, Alexander Dawson School, Lafayette (Jeff Ellenbogen); **Mina Mungekar**, Challenge School, Denver (Matt Bixby); **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Emily Hale); and **Casey Zhang**, Southern Hills Middle School, Boulder (Tara Calloway).

## MATHCOUNTS

MATHCOUNTS is an after school program for 6<sup>th</sup>, 7<sup>th</sup>, and 8th graders which leads to a series of competitions at the school, chapter, state, and national levels. The top four students at the state competition represent their state at the national competition. A MATHCOUNTS competition lasts approximately 3 hours and consists of 4 rounds involving a combination of individual and team, written and oral problem solving activities. Approximately 42,000 students from more than 6,000 schools participated in competitions across the country in 2010-2011, including 1,090 students from 143 Colorado schools. The national MATHCOUNTS competition will be held May 5-8 in Washington, D.C.

### First Place Colorado Team (and Coaches)

**Jackson Chen**, **Sophia Chen**, **Yunyu Lin**, and **Christine Soh**, Summit Middle Charter School, Boulder (Tanya de Nobrega).

### Colorado MATHCOUNTS Team (and Coach)

**Jesse Zhang** and **Casey Zhang**, Southern Hills Middle School, Boulder (Denise Pearman-Johnson); **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Christine Draper); and **Christine Soh**, Summit Middle Charter School, Boulder (Tanya de Nobrega). Team Coach: Tanya de Nobrega, Summit Middle Charter School, Boulder

### Honorable Mention (and Coaches)

**Ryan Culhane** and **Sarah Nick**, Hill Campus of Arts & Sciences, Denver (Mike Tabb); **T.J. Leing**, Alexander Dawson School, Lafayette (Jeff Ellenbogen); **Yunyu Lin** and **Webb Harrington**, Summit Middle Charter School, Boulder (Tanya de Nobrega); and **Jason Perrin**, Stargate School, Thornton (Ken Haney).

## American Mathematics Contests 10 and 12

Each contest is a 75-minute 25-question multiple choice test with approximately 12 common problems between them. Students in grades 10 and below are eligible for the AMC 10; students in grades 12 and below are eligible for the AMC 12. The contests are given in two versions in February, 15 days apart. In 2011 national participation rates were approximately 104,000 students from more than 3,700 schools, and 105,000 students from more than 4,000 schools, in AMC 10 and 12, respectively. Colorado's participation rates: 652 students from 46 schools (AMC 10) and 663 students from 44 schools (AMC 12).

### AMC 10--Top Colorado Individual Winners (and Coaches)

- (1) **Albert Soh**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)
- (2) **Jesse Zhang**, Southern Hills Middle School, Boulder (Tara Calloway)
- (3) **Henry Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)

Top 8<sup>th</sup> grade student: **Jesse Zhang**

### AMC 10--Honorable Mention (and Coaches)

**Kyle Christensen**, **Kyle Lund**, **Siyang Sun**, and **Larry Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson); **Yujie Huang**, home schooled, Lakewood (Silva Chang); **Shawn Ong**, Douglas County High School, Castle Rock (Jodene Kissler); **Christine Soh**, Summit Middle Charter School, Boulder, (Ingrid Fotino); **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Emily Hale); and **Robert Spofford**, Heritage High School, Littleton (Silva Chang).

### AMC 12—First Place Colorado Team (and Coaches)

Alex Black, Eric Eisenberg, and Chris Guthrie, Fairview High School, Boulder (Del Ebadi and Lori Johnson).

### AMC 12--Top Colorado Individual Winners (and Coaches)

- (1) **Chris Guthrie**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)
  - (2) **Alex Black**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)
  - (2) **Kevin Xie**, Douglas County High School, Castle Rock (Jodene Kissler)
- Top 10<sup>th</sup> grade student: **Le Cheng Fan**, Lakewood High School, Lakewood (Daniel Bock)

### AMC 12--Honorable Mention (and Coaches)

**Eric Eisenberg, Nicholas Ledru, and Charles Xu**, Fairview High School, Boulder (Del Ebadi and Lori Johnson); **Le Cheng Fan**, Lakewood High School (Daniel Bock); **Allan Gardner**, Air Academy High School, USAF Academy (Cheryl Laslo); **Ian Koss**, Poudre High School, Fort Collins (Jeff Davis); **Thomas Scheevel**, Fruita Monument High School, Fruita (Tim Graus); and **David Wise**, The Classical Academy, Colorado Springs (Lisa Willoughby).

## American Invitational Mathematics Examination and the USA Math Olympiads

The *American Invitational Mathematics Examination* is a 3-hour 15-question examination with each answer a 3-digit number. The exam is administered in school six weeks after the AMC 10 and 12 exams to students achieving Honor Roll status on the AMC 10 or 12 exams. In 2011, more than 12,300 students nationwide took the AIME, including 40 students from Colorado.

The *USA Math Olympiad* and the *USA Junior Math Olympiad* are 9-hour 6-question essay examinations given to the top 500 students participating in the AMC 10 and 12 exams and the AIME. The top 6 USAMO students will comprise the USA team at the International Mathematical Olympiad to be held this July in Amsterdam, The Netherlands. Four Colorado students are writing these exams in 2011:

USA Math Olympiad qualifiers: **David Wise**, The Classical Academy, Colorado Springs (Lisa Willoughby); and **Charles Xu**, Fairview High School, Boulder (Del Ebadi and Lori Johnson). USA Junior Math Olympiad qualifiers: **Albert Soh**, Fairview High School, Boulder (Del Ebadi and Lori Johnson); and **Jesse Zhang**, Southern Hills Middle School, Boulder (Tara Calloway).

## American Regions Mathematics League

In 2010, 1,800 students from 38 states and 11 other countries formed 120 fifteen-member teams to compete at the national ARML competition. The Colorado team placed 4th in the Western Division and 22<sup>nd</sup> nationally. This year's team members are listed below.

**Ben Alpert, Alex Black, Will Conway, Eric Eisenberg, Chris Guthrie, Nicolas Ledru, Albert Soh, and Charles Xu**, Fairview High School, Boulder; **Le Cheng Fan**, Lakewood High School; **Allan Gardner**, Air Academy High School, USAF Academy; **Thomas Scheevel**, Fruita Monument High School, Fruita; **Stephen Whitnah**, Overland High School, Aurora; **David Wise**, The Classical Academy, Colorado Springs; **Kevin Xie**, Douglas County High School, Castle Rock; and **Jesse Zhang**, Southern Hills Middle School, Boulder. Coach: Silva Chang, Boulder.

## Mathematical Contest in Modeling

The international Mathematical Contest in Modeling is a team contest for undergraduates. The Mathematical Association of America is one of the sponsoring organizations. A team of three students works in mid-February from 8 p.m. on a Thursday until 8 p.m. the following Monday, using applied mathematics to solve their choice of one of three real-world problems. In 2011, solutions were submitted by 2,775 teams from 16 countries, including 347 teams from the U.S. Fourteen teams from eight Colorado colleges and universities participated. The following two teams (and their coaches) from Colorado were rated **Meritorious**:

**Cassandra Benson, Atsuya Kumano, and Shupeng Li**, Colorado College, Colorado Springs  
(Profs. Amelia Taylor and Andrea Bruder)

Cadets **Travis Myers, Kevin Ueunten, and Shannon Young**, U.S. Air Force Academy, Colorado Springs  
(Prof. Kurt Herzinger)

## William Lowell Putnam Mathematical Competition

The William Lowell Putnam Mathematical Competition is a collegiate examination sponsored by the Mathematical Association of America. It is a 6-hour 12-question essay examination given on campus on the first Saturday in December. All undergraduates are eligible. In 2010 nearly 4,300 students from 546 institutions participated nationwide. Students from ten Colorado colleges and universities participated.

### Top Colorado Individual Winners (and Coaches)

- (1) **David Lin**, University of Denver (Prof. Ronnie Pavlov)
- (1) **Hank Ditton**, University of Northern Colorado, Greeley (Profs. Anton Dzhamay and Steve Leth)
- (3) **Marshall Carpenter**, U. of Colorado – Boulder (Profs. Alexander Gorokhovskiy, Keith Kearnes, Sergei Kuznetsov)