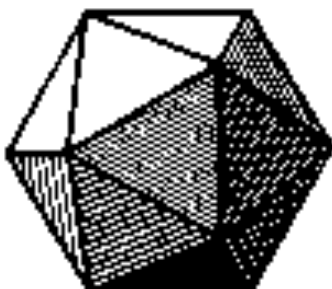


# **2012 Colorado Mathematics Awards**

**The 17th annual reception to recognize outstanding performance  
in national and international mathematics competitions  
by Colorado middle school, high school, and undergraduate college students.**



**Tuesday, May 22, 2012**

**4:15 – 7:00 p.m.**

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

# 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: Mr. Jeff Abbate, Manager of Engineering, CH2M HILL

Presentation of Awards:

- **American Mathematics Contest 8:** presented by Mr. Howard Selbst, Falcon Creek Middle School, Aurora (retired) 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. Junior Mathematics 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 Janet Nichols, CSU-Pueblo, recognized by Dr. Bill Cherowitzo, Section Chair
- **Mathematical Contest in Modeling:** presented by Dr. Cherowitzo
- **William Lowell Putnam Mathematical Competition:** presented by Dr. 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 (ret.); and Prof. Lou Talman, Dept. of Mathematics, Metropolitan State University of Denver.

Special thanks to: Arrow Awards of Phoenix; Ms. Adrienne Sussman, Governor's Office; Mr. Rocke Verser, 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 2011, more than 150,000 students from more than 2,400 schools nationwide participated in this exam. In Colorado, 1,500 students from 30 schools participated.

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

- (1) **Jackson Chen**, Summit Middle Charter School, Boulder (Aaron Bradley) **A perfect score!**  
(1) **Christine Soh**, Summit Middle Charter School, Boulder (Aaron Bradley) **A perfect score!**  
(1) **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Emily Hale) **A perfect score!**  
Top 6<sup>th</sup> grade student: **Hongyi Chen**, Altona Middle School, Longmont (Bernardine Marsis)

### Honorable Mention (and Coaches)

**Victor Amato**, Liberty Common School, Ft. Collins (Torgun Lovely); **Hongyi Chen** and **Scott Weygandt**, Altona Middle School, Longmont (Bernardine Marsis); **Kristine Guo**, Peak to Peak Charter School, Lafayette, (Kimberly Struck); **Jungwon Kang**, Leshar Middle School, Ft. Collins (Janice Martinez); **Daniel Kim**, Preston Junior High School, Ft. Collins (Sue Everett); **Joyce Lee** and **Avi Swartz**, Challenge School, Denver (Matt Bixby); **T.J. Leing**, Alexander Dawson School, Lafayette (Jeff Ellenbogen); **Aaron Lou** and **Nina Vendhan**, Cresthill Middle School, Highlands Ranch (Kevin Larsen); and **George Younger**, Colorado Academy, Denver (John Threlkeld).

## 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. In 2011-12, 19,500 students from 5,465 schools participated in competitions across the country, including 1,035 students from 136 schools in Colorado. The national MATHCOUNTS competition was held May 10-13 in Orlando, Florida.

### First Place Colorado Team (and Coach)

**Hongyi Chen**, **Hannah Zhang**, **Scott Weygandt**, and **Joanna Liu**, Altona Middle School, Longmont (Bernadine Marsis).

### Colorado MATHCOUNTS Team (and Coaches)

**Avi Swartz**, Challenge School, Denver (Matt Bixby); **Samson Rao**, Vanguard School, Colorado Springs (Andrew Sterling); **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Christine Draper); **Aaron Lou**, Cresthill Middle School, Highlands Ranch (Kevin Larsen). Team Coach: Bernadine Marsis, Longmont.

### Honorable Mention (and Coaches)

**Hongyi Chen** and **Hannah Zhang**, Altona Middle School, Longmont (Bernardine Marsis); **Kristine Guo**, Peak to Peak Charter School, Lafayette (Kimberly Struck); **Joyce Lee**, Challenge School, Denver (Matt Bixby); **Nathan Soedjak**, Homeschool, Denver (Heroe Soedjak); and **Casey Zhang**, Southern Hills Middle School, Boulder (Denise Pearman-Johnson).

## 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 2012 national participation rates were approximately 100,000 students from 3,855 schools, and 108,000 students from 4,060 schools, in AMC 10 and 12, respectively. Colorado's participation rates: 550 students from 39 schools (AMC 10) and 718 students from 48 schools (AMC 12).

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

- (1) **Jesse Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson) **A perfect score!**  
(2) **Albert Soh**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)  
(3) **Shawn Ong**, Douglas County High School, Castle Rock (Laura Bush)  
Top 8<sup>th</sup> grade student: **Christine Soh**, Summit Middle Charter School, Boulder (Aaron Bradley)

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

**Chelsea Lim**, Poudre High School, Fort Collins (Jeff Davis); **Christine Soh**, Summit Middle Charter School, Boulder (Aaron Bradley); **Angela Song**, Mountain Ridge Middle School, Colorado Springs (Emily Hale); **Robert Spofford**, Heritage High School, Littleton (Chrissy Berens); **Siyang Sun**, **Riley Xu**, and **Larry Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson).

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

**Henry Zhang**, **Albert Soh**, and **Riley Xu**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)

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

- (1) **Kevin Xie**, Douglas County High School, Castle Rock (Laura Bush)  
(1) **Henry Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)  
(3) **Tae Kim**, Cherry Creek High School, Greenwood Village (Mike Nutter and Mike Berndt)  
Top 10<sup>th</sup> grade student: **Albert Soh**, Fairview High School, Boulder (Del Ebadi and Lori Johnson)

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

**Ryan Arata**, Lewis-Palmer High School, Monument (Kathleen Thirkell); **Tommy Fan**, Lakewood High School (Daniel Bock); **Matthew Iverson**, Liberty Common School, Ft. Collins (Torgun Lovely); **Nicolas Ledru**, **Albert Soh**, and **Riley Xu**, Fairview High School, Boulder (Del Ebadi and Lori Johnson); and **Daniel Zheng**, Cherry Creek High School, Greenwood Village (Mike Nutter and Mike Berndt).

## **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 2012, nearly 9,300 students nationwide qualified for (and 5,750 participated in) the AIME; 41 qualified (and 34 participated) in 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 Mar del Plata, Argentina. Nationally, 268 students were invited to take the USAMO examination—none from Colorado. Nationally, 233 students qualified for the USAJMO examination, including four Colorado students:

USA Junior Math Olympiad qualifiers: **Albert Soh**, **Jesse Zhang**, and **Larry Zhang**, Fairview High School, Boulder (Del Ebadi and Lori Johnson); and **Robert Spofford**, Heritage High School, Littleton (Chrissy Berens).

**Jesse Zhang was named a winner of the USAJMO, qualifying for the Mathematical Olympiad Summer Program (MOSP), which trains and selects the members of the U.S. Olympiad Team.**

## **American Regions Mathematics League**

In 2011, 2000 students from 36 states and five other countries formed 138 fifteen-member teams to compete at the national ARML competition. The Colorado team, coached by Silva Chang of Boulder, placed 6<sup>th</sup> in the Western Division and 14<sup>th</sup> nationally. **Ben Alpert** placed 6<sup>th</sup> in the individual competition nationally. This year's team members are listed below.

**Alex Black**, **Cissy Chen**, **Nicolas Ledru**, **Albert Soh**, **Riley Xu**, **Henry Zhang**, **Jesse Zhang**, and **Larry Zhang**, Fairview High School, Boulder; **Artem Bolshakov**, Ridgeview Classical Schools; **Tommy Fan**, Lakewood High School; **Jacob Imola** and **Tae Kim**, Cherry Creek High School, Greenwood Village; **Shawn Ong** and **Kevin Xie**, Douglas County High School, Castle Rock; and **Robert Spofford**, Heritage High School, Littleton.

## **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 2012, solutions were submitted by nearly 3,700 teams from 16 countries, including 341 teams from the U.S. Eight teams from four Colorado colleges and universities participated.

**Only ten teams worldwide were Outstanding, including two from the University of Colorado-Boulder!**

**Christopher Corey**, **Stephen Kissler**, and **Sean Wiese**, University of Colorado-Boulder (Prof. Anne Dougherty). This team was also designated as the MAA Prize winner for Problem B.

**Christopher Aicher**, **Tracy Babb**, and **Daniel Sutton**, University of Colorado-Boulder (Prof. Anne Dougherty). This team was also designated as the INFORMS Prize winner for Problem B.

## **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 2011, 4,440 students from 572 institutions participated nationwide. Students from ten Colorado colleges and universities participated.

### **Top Colorado Individual Winners (and Coaches)**

- (1) **Marshall Carpenter**, U. of Colo.-Boulder (Prof's. Keith Kearnes, Alexander Gorokhovskiy, and Sergei Kuznetsov)  
(2) **Christopher Aicher**, **Keegan Boyle**, and **Alec Jenkins**, University of Colorado-Boulder (Prof's. Keith Kearnes, Alexander Gorokhovskiy, and Sergei Kuznetsov); **Max Roschke**, University of Denver (Prof. Ronnie Pavlov); and **Steven Wray**, Metropolitan State University of Denver (Prof. Bill Emerson).