



2014 Colorado Mathematics Awards

*The 19th annual reception to recognize outstanding performance
in national and international mathematics competitions
by Colorado middle school, high school, and undergraduate college students.*

**Tuesday, May 13, 2014
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 Professor of Mathematics,
Ft. Lewis College**

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

**Remarks: Dr. Anne Dougherty, Dept. of Applied Mathematics, University of Colorado-
Boulder**

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 Ms. Noelle Cochran, P.E., National Society of Professional Engineers of Colorado, and Colorado MATHCOUNTS Coordinator
- **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 participants** by Dr. Gibbs
- **American Regions Mathematics League (ARML) Colorado Team:** presented by Ms. Silva Chang, Director, Colorado Math Circle, Boulder, and ARML Team Coach
- **Rocky Mountain MAA Section Burton W. Jones Distinguished Teaching Award** recipient, Dr. Anne Dougherty, CU-Boulder, recognized by Professor Erica Hastert, Vice-Chair, Rocky Mountain Section of the Mathematical Association of America
- **William Lowell Putnam Mathematical Competition and the International Mathematical Contest in Modeling:** presented by Professor Hastert

6:30 – 7:00

Refreshments

American Mathematics Contest 8

The AMC 8 is a 40-minute 25-question multiple-choice exam given in November. Students in 8th grade and below are eligible. In 2013, more than 150,000 students from more than 2,400 schools nationwide participated. In Colorado, 1,600 students from 25 schools participated.

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

- (1) **Hongyi Chen**, Altona Middle School, Longmont (Joshua Haginduff)
- (1) **Anjalie Kini**, Challenge School, Denver (Matt Bixby)
- (1) **Austen Mazenko**, Campus Middle School, Englewood (Tim Peterson)
- (1) **Erik Svenneby**, Challenge School, Denver (Matt Bixby)

Each of these students had a perfect paper!

6th Grade First Place: **Austen Mazenko**, Campus Middle School, Englewood (Tim Peterson)

Honorable Mention (and Coaches)

Michael Hu, Campus Middle School, Englewood (Tim Peterson); **Hannah Joo**, Peak to Peak Charter School, Lafayette (Kimberly Struck); **Isani Singh, Hari Sowrirajan, and Matthew Yan**, Challenge School, Denver (Matt Bixby); **Cedar Turek**, Steamboat Springs Middle School (Sally Lambert, Corrine Moody, and Norbert Turek); **Aolin Yang**, Webber Middle School, Fort Collins (Sara Vaughan); and **Luke Zhang**, Rocky Heights Middle School, Highlands Ranch (Chris Gowing)

MATHCOUNTS

MATHCOUNTS is an after school program for 6th, 7th, and 8th graders which leads to a series of three-hour competitions at school, chapter, state, and national levels. The top four students at the state competition represent their state at the national competition. In 2013-14, 19,000 students from 5,200 schools participated in competitions nationwide, including 1,035 students from 132 schools in Colorado. The state MATHCOUNTS competition was held on March 15th. The national MATHCOUNTS competition was held May 8-11 in Orlando, Florida.

First Place Colorado Team (and Coach)

Anjalie Kini, Isani Singh, Hari Sowrirajan, and Erik Svenneby, Challenge School, Denver (Matt Bixby).

Colorado MATHCOUNTS Team (and Coaches)

Hongyi Chen and **Hannah Zhang**, Altona Middle School, Longmont (Tim Criger);
Anjalie Kini and **Isani Singh**, Challenge School, Denver (Matt Bixby). Team Coach: Matt Bixby.

The Colorado team placed 10th in the national MATHCOUNTS competition.

Hongyi Chen placed 3rd in the written competition and 6th in the Countdown Round!

Honorable Mention (and Coaches)

Hari Sowrirajan, Challenge School, Denver (Matt Bixby); **Luke Zhang**, Rocky Heights Middle School, Highlands Ranch (Chris Gowing); **Aolin Yang**, Webber Middle School, Fort Collins (Sara Vaughan); **Philip Ding**, Southern Hills Middle School, Boulder (Matthew McKay); and **Andrea Lin** and **Amanda Li**, Summit Middle Charter School, Boulder (Tanya de Nobrega)

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 2014 national participation rates were approximately 103,000 students from 3,600 schools, and 89,000 students from 3,700 schools, in AMC 10 and 12, respectively. Colorado's participation rates: 561 students from 47 schools (AMC 10) and 610 students from 45 schools (AMC 12).

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

- (1) **Nina Vendhan**, Kent Denver School, Englewood (Bob Putka)
- (2) **Aaron Lou**, Highlands Ranch High School (Mark Story)
- (3) **Andrew Ying**, Cherry Creek High School, Greenwood Village (Doty Dady)
- (3) **Hongyi Chen**, Altona Middle School, Longmont (Tim Criger)

A perfect paper!

8th Grade First Place: **Hongyi Chen**, Altona Middle School, Longmont (Tim Criger)

AMC 10--Honorable Mention (and Coaches)

Anjalie Kini and **Isani Singh**, Challenge School, Denver (Matt Bixby); **T. J. Leing**, Alexander Dawson School, Lafayette (Brian Hannen); **Christine Soh** and **Casey Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman); and **Avi Swartz** and **Won Jae Kim**, Cherry Creek High School, Greenwood Village (Dotty Dady)

AMC 12—First Place Colorado Team (and Coaches)

Jesse Zhang, **Albert Soh**, **Siyang Sun**, and **Larry Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman)

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

- (1) **Jesse Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman)
- (2) **Albert Soh**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman)
- (3) **Shawn Ong**, Douglas County High School, Castle Rock (Laura Bush)

10th Grade First Place: **Matthew Iverson** (a 9th grader), Liberty Common High School, Fort Collins (Torgun Lovely)

AMC 12--Honorable Mention (and Coaches)

Ethan Coldren, Fossil Ridge High School, Fort Collins (Martha Cranor); **Jacob Imola** and **Lubin Deng**, Cherry Creek High School, Greenwood Village (Dotty Dady); **Matthew Iverson**, Liberty Common High School, Fort Collins (Torgun Lovely); **Chelsea Lim**, Poudre High School, Fort Collins (Jeff Davis); **Robert Spofford**, Heritage High School, Littleton (Lou Berlin); and **Siyang Sun** and **Larry Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman)

American Regions Mathematics League (A1 – Team)

In 2013, 2100 students from the U.S. and five other countries formed 140 fifteen-member teams to compete at the national ARML competition. The Colorado team placed 6th in the Western Division and 23rd nationally. This year's team members are listed below:

Hongyi Chen, Altona Middle School, Longmont; **Jacob Imola** and **Avi Swartz**, Cherry Creek High School, Greenwood Village; **T. J. Leing**, Alexander Dawson School, Lafayette; **Joshua Mundinger**, Boulder High School; **Shawn Ong**, Douglas County High School, Castle Rock; **Albert Soh**, **Christine Soh**, **Siyang Sun**, **Casey Zhang**, and **Jesse Zhang**, Fairview High School, Boulder; **Robert Spofford**, Heritage High School, Littleton; **Nina Vendhan**, Kent Denver School, Englewood; **Scott Weygandt**, Niwot High School; and **George Younger**, Colorado Academy, Denver. Team Coach: Ms. Silva Chang, Director, Colorado Math Circle, Boulder.

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 several weeks after the AMC 10 and 12 exams to students achieving Honor Roll status on the AMC 10 or 12 exams. In 2014, approximately 5,400 students nationwide participated in the AIME; 42 Colorado students participated this year.

The *USA Math Olympiad* and the *USA Junior Math Olympiad* are 9-hour 6-question essay examinations given in April to the top 500 or so 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 July 3-10 in Cape Town, South Africa. Nationally, 266 students were invited to take the USAMO exam, including four from Colorado. Nationally, 231 students qualified for the USAJMO exam, including four Colorado students:

USA Math Olympiad Qualifiers: **Ethan Coldren**, Fossil Ridge High School, Ft. Collins (Martha Cranor); **Shawn Ong**, Douglas County High School, Castle Rock (Laura Bush); **Albert Soh** and **Jesse Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman). USA Junior Math Olympiad Qualifiers: **Hongyi Chen**, Altona Middle School, Longmont (Tim Criger); **Avi Swartz**, Cherry Creek High School, Greenwood Village (Dotty Dady); **Nina Vendhan**, Kent Denver School, Englewood (Bob Putka); and **Casey Zhang**, Fairview High School, Boulder (Del Ebadi, Philip Astras, and Emily Silverman). **Hongyi Chen** is an 8th grader, and **Avi Swartz** is a 9th grader.

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 2013, 4,113 students from 557 institutions participated nationwide. Students from 11 Colorado colleges and universities participated.

Top Colorado Individual Winners (and Coaches)

- (1) **Allan Gardner**, University of Colorado-Colorado Springs (Professor Radu Cascaval)
- (2) **Katrina Eidolon**, University of Colorado-Colorado Springs (Professor Radu Cascaval)

International 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. Teams of three students worked for 96 hours over the weekend of February 6-10, using applied mathematics to solve their choice of one of two real-world problems. In 2014, solutions were submitted by 6,755 teams from 18 countries, including 391 teams from the U.S. Eleven teams from five Colorado colleges and universities participated.

There were 13 Outstanding winners and 12 Finalist winners worldwide.
The Colorado College Problem B Team was one of the 12 Finalist winners!

- **Melissa Jay, Vankatasai Ganesh Karapakula, and Emma Krakoff**, Colorado College, Colorado Springs (Professor Amelia Taylor)

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Colorado Mathematics Awards Steering Committee Members

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

Special thanks to: Arrow Awards, Phoenix; Mr. Seki Hodzic, Augustana Lutheran Church, Denver (sound system); and Judy Lerner Catering, Denver.

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>.