



Colorado Mathematical Olympiad celebrates A QUARTER CENTURY

Colorado Mathematical Olympiad has reached an historic landmark: A Quarter Century! The XXV Annual Colorado Mathematical Olympiad (CMO-2008) took place on April 18, 2008. It brought together some **400** middle and high school students from all over Colorado: Aspen, Aurora, Bailey, Boulder, Branson, Calhan, Canon City, Colorado Springs, Dacono, Denver, Ellicott, Englewood, Falcon, Fort Collins, Fort Lupton, Littleton, Longmont, Loveland, Monument, Parker, Pueblo, Rangely, Security, U.S. Air Force Academy, Woodland Park. We hosted participants from Hudson, Ohio, and Los Altos, California. We also had guest participants from the Alabama School of Mathematics and Science, Mobile, Alabama, who earned their trip to our Olympiad by winning their local mathematics competition.

The Olympians were offered five problems and four hours to solve them and present complete essay-type solutions.

The judges have awarded First prize to Marshall Carpenter, a senior from Fairview High School of Boulder. He will receive a gold medal of the Olympiad, a \$1,000 scholarship to be used at any certified American university or four-year college, a \$1,000 UCCS Chancellor's Scholarship for CMO Medalists, CASIO or Texas Instruments Graphing Calculator, CASIO Watch, Wolfram Research's *Mathematica 5.2* (hard copy) and the new, not yet released *Mathematica for Students 6.0* (download) software, Wolfram Research's Crystal Star Necklace, and A. Soifer's books Colorado Mathematical Olympiad: The First Ten Years and Further Explorations and Geometric Etudes in Combinatorial Mathematics (the latter is a joint book with V. G. Boltyanski).

Second prize will be awarded to Daniel Pascua, a senior from Liberty High School. He will receive a silver medal of the Olympiad, a \$1000 scholarship to be used at any certified American university or four-year college, a \$1,000 UCCS Chancellor's Scholarship for CMO Medalists, CASIO or Texas Instruments Graphing Calculator, CASIO Watch, Wolfram Research's *Mathematica 5.2* (hard copy) and the new, not yet released *Mathematica for Students 6.0* (download) software, Wolfram Research's Crystal Star Necklace, and the books Colorado Mathematical Olympiad: The First Ten Years and Further Explorations and Geometric Etudes in Combinatorial Mathematics.

Third prize will be presented to Ben Alpert, a Freshman from Fairview High School and Ryan Beethe, a Sophomore from Poudre High School. They will each receive a bronze medal of the Olympiad, a \$250 scholarship to be used at any certified American university or four-year college, a \$1,000 UCCS Chancellor's Scholarship for CMO Medalists, CASIO or Texas Instruments Graphing Calculator, CASIO Watch, Wolfram Research's *Mathematica 5.2* (hard copy) and the new, not yet released *Mathematica for Students 6.0* (download) software, Wolfram Research's Crystal Star Necklace, and the books Colorado Mathematical Olympiad: The First Ten Years and Further Explorations and Geometric Etudes in Combinatorial Mathematics.

Fourth prize will be presented to: Samuel Meyer, a Senior from Cheyenne Mt. High School; Alexander Black, an eighth grader from Summit Middle Charter School; Amber Verser, a Junior from Thompson Valley High School; Minh Ly, a Senior from Doherty High School; and Chris Pak, a Senior from Air Academy High School. They will each receive a Casio Watch, Casio or Texas Instruments Graphing Calculator, Wolfram Crystal Star Keyholder, A. Soifer's Colorado Mathematical Olympiad book, and Wolfram Research's *Mathematica for Students 6.0* (download) software.

First Honorable Mentions will be awarded to the following 17 contestants:

Mutian Yao, 11, Fairview High School; Charles Xu, 9, Fairview High School; Norris Xu, 12, Fairview High School; Michael Morton, 11, Rangely High School; Allan Gardner, 9, St. Mary's High School; Margaret Koehler, 10, Lewis-Palmer High School; Kathleen Monahan, 11, St. Mary's High School; Shuli Song, 10, The Classical Academy; Vicky Li, 12, Fairview High School; Victor Li, 11, Fairview High School; Eric James, 10, Mitchell High School; Eric Eisenberg, 9, Fairview High School; Sean Lehouillier, 12, Cheyenne Mountain High School; Peter Jaron, 10, Coronado High School; Andrew Brunner, 11, Pine Creek High School; and Chris Guthrie, 9, Fairview High School.

Our guest, Tian Tan, 11, Murphy High School, Mobile, Alabama will also be awarded First Honorable Mention.

They will each receive a Casio Watch, Wolfram Crystal Star Keyholder, A. Soifer's Colorado Mathematical Olympiad book, and Wolfram Research's software six-month *Mathematica* for Students 6.0 (website logon).

Second Honorable Mentions will be awarded to the following 87 contestants:

John Thilenius, 10, Cheyenne Mt. High School
Christian Pitera, 10, Mesa Ridge High School
Geoffrey Iyer, 12, Fort Collins High School
Nicki Bacovan, 12, Ponderosa High School
Lucy Lu, 12, Pine Creek High School
Ryan Carson, 8, Altona Middle School
Arielle Steers, 11, Sand Creek High School
Emma Bague, 8, Altona Middle School
Scott Gneiting, 11, Ponderosa High School
Chris Coviello, 11, Ponderosa High School
Daniel Nash, 11, Fort Collins High School
Hunter Sceats, 11, Cheyenne Mt. High School
Laura Hopkins, 12, St. Mary's High School
Joseph Mortensen, 11, Fort Collins High School
Zachary Peterson, 10, St. Mary's High School
William Palma, 8, Corpus Christi Catholic School
Adam Armstrong, 10, St. Mary's High School
Shawn Smith, 12, St. Mary's High School
Eli Lovelace, 10, Ponderosa High School
Jeremy Johnson, 12, Mesa Ridge High School
Ty Traver, 10, Ponderosa High School
Scott Ritz, 12, Pine Creek High School
Jade Slayter, 10, Falcon High School
Brandon Barkey, 11, Falcon High School
Taylor Herbert, 10, Falcon High School
Ellie Daw, 8, Altona Middle School
John Slavens, 11, Coronado High School
Dillon Manzanares, 8, Altona Middle School
Sydney Doxtator, 7, Fitzsimmons Middle School
Trevor Arrasmith, 8, Altona Middle School
Michael Collard, 12, Sand Creek High School
Kira Combs, 10, Sand Creek High School
Brian Nakayama, 12, Doherty High School
Christopher Del Valle, 9, Mitchell High School

Joshua Olson, 9, Sand Creek High School
Joshua Reding, 12, Doherty High School
Ayla Williams, 11, Sand Creek High School
Ryan Sandel, 10, Sand Creek High School
Catherine Pond, 8, Altona Middle School
Claud Martin, 11, Branson School Online
Matt Quereau, 11, Sand Creek High School
Maggie Lusk, 11, Sand Creek High School
Kristen Gilmore, 9, Platte Canyon Schools
Ashlee Gee, 10, Mitchell High School
Adam Figueroa, 12, Fort Lupton High School
David Jimenez, 7, Quest Academy
Bryson Keith, 10, Ponderosa High School
Hayley Martin, 10, Ponderosa High School
Alex Petterson, 11, Fort Collins High School
Matthew Thilenius, 11, Cheyenne Mt. High School
Donald Dodge, 11, Ponderosa High School
Alec Loudenback, 11, Ponderosa High School
Cameron King, 9, Ponderosa High School
Darren Kirk, 10, Ponderosa High School
Kit Pfeiffer, 10, Ponderosa High School
Veronica Meadows, 10, Ponderosa High School
Peter Ducey, 10, Ponderosa High School
Vicki Shin, 12, Ponderosa High School
Isabel Kirk, 10, Ellicot High School
Hanna Scovill, 12, Ponderosa High School
Troy Wagoner, 10, Falcon High School
Andrew Hadfield, 11, St. Mary's High School
Melissa Kean, 12, Pine Creek High School
Luke Pedersen, 8, Irving Middle School
Natalie Gonzalez, 9, Platte Canyon Schools
Morgan McCadden, 9, Falcon High School
Johnny Hill, 9, Falcon High School
KJ Norlander, 9, Falcon High School
Kelly Haase, 11, Platte Canyon Schools
Roget Mo, 7, Altona Middle School
Albert Soh, 6, Summit Middle Charter School
Alejandro Garcia, 8, Altona Middle School
Iana Stoytcheva, 8, Altona Middle School
Annina McMillan, 10, Falcon High School
Garrett Seeman, 10, Coronado High School
Ben Pusey, 10, Platte Canyon Schools
Allison Pinterpe, 11, Falcon High School
Matt McNichols, 8, Altona Middle School
Jill DeBiase, 8, Fitzsimmons Middle School
Lauren Wilfong, 6, Irving Middle School
Benji Pacot, 11, Ellicot High School
Jordan Mathis, 10, Mitchell High School
Jin Beak, 6, Summit Middle Charter School
Daniel Yedidovich, 6, Aurora Hills Middle School
Brenden Lynch, 9, Sand Creek High School

Jena Dillon, 12, Sand Creek High School
Josh Lamson, 11, Sand Creek High School

The Second Honorable Mention winners will receive Wolfram Research's Crystal Star Keyholder, and Wolfram Research's six-month *Mathematica* for Students 6.0 (website logon).

Literary Awards will be presented to Isabelle Soifer, 11, Los Altos High School, Los Altos, California and Chelsea Gardner, 11, Ponderosa High School.

Those who wish to understand the spirit of the Olympiad are invited to solve at least one of the Olympiad's five problems. Here, for example, is a problem **Old Glory Returns**:

A 2008×2008 flag was shot in battle 2008 times. Prove that we can cut out of it two 250×250 squares that have an equal number of bullet holes.

THIS YEAR'S PRIZE FUND OF THE OLYMPIAD has been generously donated by Intermap Technologies, Inc., CASIO, Inc., Wolfram Research, Texas Instruments, City of Colorado Springs, UCCS Bookstore, Air Academy Dist. 20, School Dist. 11, Harrison School Dist. 2, Rangely High School, Fort Collins High School, Falcon Dist. 49, Chancellor, UCCS, Vice Chancellor for Academic Affairs, UCCS, Vice Chancellor for Student Success, UCCS, Vice Chancellor for Administration & Finance, UCCS, College of Letters, Arts, and Sciences, UCCS, Office of Campus Activities, UCCS; and Alexander Soifer.

THE AWARD PRESENTATION PROGRAM will feature a lecture *Creators of Mathematical Coloring*, and *Review of Solutions of the 25th Colorado Mathematical Olympiad Problems* by Alexander Soifer.

The following guests of honor, hosts and sponsors will address the winners and present the awards: Pamela Shockley, Chancellor, and Thomas Christensen, Dean of the College of Letters, Arts, and Sciences – both from UCCS; Greg Hoffman, Director of Human Resources, Intermap Technologies Inc., Maggie Lopez, Assistant Superintendent, Colorado Springs School District 20; Mary Thurman, Deputy Superintendent, School District 11; and Alexander Soifer, Chair, Colorado Mathematical Olympiad.

In the 25 years of Colorado Mathematical Olympiad, some 16,500 students have participated during 1984-2008. They have written some 84,000 essays, and were awarded some \$250,000 in prizes. The Olympiad is a unique joint effort of school districts, schools, institutions of higher education, business community and local and State governments.

MARK YOUR CALENDARS:

The Twenty-Fifth Annual Colorado Mathematical Olympiad will take place on April 17, 2009 with Award Presentation following on April 24, 2009.

For details please consult <http://www.uccs.edu/~asoifer/olympiad.html> .

Alexander Soifer