Math Circles along the Hudson River: from New York City to Albany
Japheth Wood, NY Math Circle and Bard College, <japheth@nymathcircle.org>

Over the last ten years, Math Circles, including the New York Math Circle, the Bard Math Circle and the Albany Area Math Circle have established themselves in cities along the Hudson River. This talk is an overview of how these efforts have interacted and cooperated to provide high quality math enrichment to students and teachers, and how they are helping other math circles get their start.

New York Math Circle:
http://www.nymathcircle.org

CMT: Center for Mathematical Talent
http://www.math.nyu.edu/cmt/

SPMPS
http://www.artofproblemsolving.org/spmps/

cSplash
http://www.cims.nyu.edu/~csplash/index.php

Math-M-Addicts

Math Prize for Girls
http://mathprize.atfoundation.org/index

NYCIML: New York City Interscholastic Math League
http://www.nyciml.org

Museum of Mathematics
http://momath.org

Math Physics Explore
http://www.mathphysicsexplore.org/

Bard Math Circle:
http://bardmathcircle.blogspot.com/

Albany Area Math Circle:
http://albanyareamathcircle.blogspot.com/
http://sites.google.com/site/mathcircle/Home

Ithaca Math Circle:
http://sites.google.com/site/ithacahighmathteam/
Math Circles along the Hudson River: from NYC to Albany

Japheth Wood, New York Math Circle
japheth@nymathcircle.org
New York City
Welcome!

The New York Math Circle offers interested students an opportunity to develop reasoning and problem solving skills through exploration of Mathematics. Read more about us here. And check out some problems for a taste of Mathematics we enjoy.

News

- We were on TV! Check out the NY1 special feature about New York Math Circle!
- Spring classes for high school and middle school students start on Saturday, February 12. Registration is now open!

Join our mailing list, and you'll be the first to hear about upcoming events!

Students

At NYMC students will encounter a wide range of topics, solve challenging problems, make exciting discoveries, and meet fascinating people. Exceptional instructors teach intriguing and challenging yet very accessible Mathematics in an informal and friendly atmosphere. We call it a rich mathematical experience. Read more about our student classes, or read what students themselves have to say.

Teachers

In addition to student Math Circles, NYMC offers courses for teachers, to encourage and support excellent teaching of Mathematics. You can read their comments.
NYMC Summer Workshop 2011 at Bard College

Location: Bard College, Annandale-on-Hudson, NY (map). Accommodations will be provided.
Audience: Middle and High School Mathematics Teachers.
Theme: Optimization and Inequalities.

Join us at Bard this summer for a week-long residential program focused on the investigation of inequalities and optimization. Enjoy an environment of creative and insightful mathematical problem solving for middle school and high school math teachers who wish to deepen their mathematical understanding. No prior experience with inequalities required, just an interest in doing mathematics in a community of teachers. Workshops and activities led by NYMC instructors and Bard math professors.

Announcement flyer (2.8M)
Info Sheet with additional information

Registration

Register here

The full registration fee is $445. Space is not guaranteed until payment is received. The following discounts are available, and may be combined:

- Math for America public school teacher rebate of $150 (letter of recommendation from your principal required: download form).
- Commuter discount of $47 (no room provided).
The Lehman College Math Circle

Rigorous Mathematics with Proofs for High School Students in the Bronx

Lehman College Math Circle members are mathematically talented high school students who come to Lehman College to enhance their mathematics education. See our past events and Spring 2008 events. This Fall our only activity is our College Now Precalculus Class.

Most math circle members take College Now math courses after school. The courses are fully funded through the College Now program with paid faculty, free textbooks and college credit. Mr. Gantz is the coordinator and Prof. Sormani is the math adviser. You may also contact a college now liason at a participating high school. All students who participate in these courses become permanent members of the Lehman College Math Circle.

One course currently offered every semester is College Now Precalculus. Our first semester we had students from 5 different high schools learning a rigorous precalculus with unit circle trigonometry, exponential and rational functions and proofs. It is a four credit course which covers the same material as Lehman College’s MAT172 and students must place into MAT172 on the CUNY math placement exam to take the course. See our syllabus from Spring 2006. Like all college courses, this is a homework intensive class.

We regularly offer College Now Programming Methods I for students who have completed precalculus with unit circle trigonometry or the equivalent. This is a four credit course which covers the same material as Lehman College’s CMP230 including algorithms, programming in JAVA, and debugging techniques. It is required for majors in mathematics and computer science as well as other scientific fields of study.

Students may also take Calculus at Lehman College as well as more advanced mathematics courses like Discrete Math and Linear Algebra.
The Center for Mathematical Talent (CMT) at the Courant Institute of Mathematical Sciences coordinates activities for students in the New York City area who would like more mathematics than is included in the usual mathematics classroom. The Center consolidates and supports existing programs for students with mathematical talent, develops new programs serving these students, these teachers and their schools; and extends the reach of such programs to include populations of mathematically talented students not yet served by such programs.

**Fall 2011: Climbing to the Summit: A Mathematical Gradus ad Parnassum.** Students in grades 9-12 with a passion for mathematics are invited to join this problem-solving circle, based on materials developed by Mark Saul and Titu Andreescu. We will takes students from the simplest textbook exercises up through problems on the level of a US or International Olympiad. The pWe will start wherever you are, and bring you as far as you care to travel.

**Special Offer:** Dinner and a Theorem. Come between 4:30 and 5:00 PM and we offer a mathematical discussion over dinner. Special dietary needs accommodated.
The Courant Institute's festival of math and science for high school students will next be held on **Spring 2011** at New York University.

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**Announcements**

The tentative date for cSplash is March 26th, 2011.

Student registration should open January/February 2011.

For course notes, go [here](#).

We are now on [facebook](#).
Come join our group.

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**What is cSplash?**

**Courant Splash** is a one-day festival of classes in the mathematical and computer sciences, designed and taught by enthusiastic graduate and undergraduate students, faculty, and others associated with the Courant Institute. cSplash is an opportunity to get your feet wet in subjects completely new to you. During the program, you can attend as many talks as you want on topics in pure math, applied math, computer science, and related fields. The program is free and is open to all students in grades 9-12 (or with equivalent mathematical background) with an interest in mathematical and computer sciences. Spaces are limited and are allocated on a first-come, first-serve basis so please register early to guarantee a spot.

**Goals of the program:**

- To bring together students with an interest in mathematical and computer sciences
- To expose students to the beauty of mathematical ideas and the diversity of things for which they can be used
- To stimulate and challenge those students beyond the normal high school curriculum
- To provide an opportunity for Courant students and affiliates to teach something about which they are passionate to bright, motivated young minds
Math-M-Addicts

The goal of the program is to challenge the brain, make new friends, have fun, and learn mathematics in the process. Most of the learning will be done by solving interesting problems in a collaborative atmosphere. Like last year, this year, there will be three groups. Each of the groups will require an entrance exam.

Group S is intended for 7th graders through 9th graders. Comfort with algebra is strongly suggested; a broad array of topics will consist of number theory, factoring, triangles, circles, combinatorics, etc. Students who are relatively new to math contests should be in this group.

Group I is intended for 8th graders through seniors. Comfort with a broad spectrum of mathematical topics, such as the pigeonhole principle, mathematical induction, geometry, number theory, algebra, etc. is strongly suggested. Topics will be similar to those in Group S, but the problems will be more challenging. Students who are on their high schools’ math teams should be in this group (unless they qualify for Group A and choose to join Group A instead).

Group A is intended for students who already have some exposure to advanced topics, such as, Complex Numbers, Polynomials, Graph Theory and Inequalities, and would like to expand their horizons. Our major goals for 2010-11 include thorough study of Analysis and 2D Geometry, one-off excursions into elegant standalone topics and honing problem solving skills. Despite the advanced level of material to be covered, we will emphasize fun and teamwork aspects of learning Mathematics.

Tuition for all students will be $160 per semester // $300 per year if paid from the start. No discounts will be given to returning students. The first class that a student attends is a trial class and is free of charge.

To register for this program, please send an inquiry to breydo@gmail.com. First semester starts on September 25th, 2010.

The following form is due second week of class for ALL students: application form
Welcome to the Math Prize for Girls

The Advantage Testing Foundation sponsors an annual math competition for high-school girls, the largest monetary math prize for girls in the world. Our goal is to encourage young women with exceptional potential to become the mathematical and scientific leaders of tomorrow.

Our second annual contest took place on Saturday, November 13, 2010 at New York University in New York City. Girls from across the United States and Canada competed for $49,000 in cash prizes.

For information about the 2010 contest, see our 2010 archive.

We now have a blog, written by Math Prize co-organizer Dr. Mary O’Keeffe.
Check out Geometric Delights, a new blog from Luyi Zhang (MPG 2009, 2010).

Posted by mok at 10:00 PM
Staff Development Day, Tuesday, November 2, 2010

October 13th, 2010

The New York City Interscholastic Math League (NYCIML) will be sponsoring its annual citywide High School math team coaches’ training session at Stuyvesant High School (Room 407) on Professional Development Day, Tuesday, November 2, 2010. We would like to invite all HIGH SCHOOL principals and assistant principals of mathematics in schools that have math teams or are considering the formation of such a team to send their math team coach(es) to this series of workshops on Problem Solving. The materials provided will be valuable resources for the teachers in your department and will include problems and strategies applicable to all levels of mathematics, specifically, grades 9 - 12. There will be special presentations on starting a math team. Experienced coaches will have workshops on special topics to be taught to the math team.

Last year, the New York City Math Team won first, second, and third place in the New York State Math League competition. With your assistance, we hope to continue this excellence through the collaborative efforts of the various math teams throughout the city.

Please send your coach or a representative to this meaningful staff development activity.

Thank you for your consideration in this matter.
Weekend math programs!

I wanted to share a few opportunities available to you guys right now who are interested in strengthening your mathematical abilities during the school year.

1) New York Math Circle (NYMC) - http://nymathcircle.org/students

High School Circle - This course includes topics in number theory, algebra, and geometry, and addresses subtle mathematical ideas, including the nature and construction of proofs. Some material will come in the form of intriguing problems from contests such as AMC 10, AMC 12 and AIME. Problem posing and problem solving are emphasized throughout.

Olympiad Level - This course develops important topics in number theory, algebra, combinatorics, and geometry, focusing on harder problems requiring sustained thought and effort. Writing of proofs will play an important role. Many problems will come from contests such as USAMO and International Math Olympiad (IMO).


The goal of the program is to challenge the brain, make new friends, have fun, and learn mathematics in the process. Most of the learning will be done by solving interesting problems in a collaborative atmosphere. There are three groups:

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Welcome to the Museum of Mathematics!
Mathematics illuminates the patterns and structures all around us. Our dynamic exhibits and programs will stimulate inquiry, spark curiosity, and reveal the wonders of mathematics. The Museum will have its grand opening in 2012 at 11 East 26th Street in Manhattan.

MoMath Featured in the New York Times!

Infant and Baby MoMath T-Shirts Now Available!
Just in: “onesie” and baby-sized versions of our popular MoMath T-shirts. Now your whole family can show their support for America’s only Museum of Mathematics! Click here to purchase a T-shirt today.

Math Encounters Videos Now Available Online
Video from our Math Encounters presentations are now online! Click here to view the videos. Every Math Encounters is recorded and will be made available online as soon as possible. Watch momath.org and mathencounters.org for updates.

Math Midway to Debut in New Jersey
If you are in New York or New Jersey and have not yet experienced the Midway, now is your chance! The Math Midway will make an extended stay at New Jersey's
Mid-Hudson Valley
Our Purpose

We develop a curiosity and interest in mathematics so students, parents and teachers can improve their math and science education. Activities focus on various topics in mathematics and their application to physical phenomenon.

This website and our Exploration Center:

- Encourage each person to reach his/her potential
- Provide guidance for children participating in science fairs
- Help teachers to explain math concepts
- Provides travel exhibits for schools

We are located at 1054 Freedom Plains Road, Poughkeepsie, NY 12603. Go to Google maps and type in 'Math and Physics Exploration' for address information and directions.

Upcoming Events

View all events »

Big Bang to Kohoutec

Humans have an innate curiosity about the universe we live in. Math and physics are tools that help us explain our world to satisfy this curiosity (and to live better, more comfortable lives).

News

Visit from Museum of Mathematics

Posted on: 9/14/2010

Executive Director Glen Whitney and Chief of Operations Cindy Lawrence of the Museum of Mathematics visited the Math and Physics Exploration on Monday, September 15. After a tour of the museum they met with Irvin Miller and had a active exchange of ideas and goals. Interestingly, Glen and Irvin both read more
A free, residential, three-week-long summer program for New York City seventh-graders with talent in math.
Welcome to the SPMPS news web page, where you’ll be able to browse and learn about the activities taking place in this summer program. This web page provides pictures, videos, daily news feeds, people facts and more for the readers to enjoy. Feel free to browse and look around!

Here's the link to the official SPMPS web page: http://www.artofoptionsolving.org/spmps/
A Sleepaway Camp Where Math Is the Main Sport

Marcus Neal, an instructor at Bard College’s Math Camp, watched as students solved problems during a group competition. More Photos »

By RACHEL CROMIDAS
Published: July 27, 2011

ANNANDALE-ON-HUDSON, N.Y. — As camps go, the Summer Program in Mathematical Problem Solving might sound like a recipe for misery: six hours of head-scratching math instruction each day and nights in a college dorm far from home.
THE BARD MATH CIRCLE

About the Math Circle
Project
Calendar

Gallery - Coming Soon

Bring a Math Circle to You!

Bard Mathematics Program

Email: BardMathCircle@gmail.com

Address: Bard College, 30 Campus Road, Annandale-on-Hudson, NY 12504-5000
Albany area
## Albany Area Math Circle home

**AAMC contest calendar**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Wednesday, February 2</td>
<td>North American Computational Linguistics Olympiad</td>
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<tr>
<td>Saturday, February 5</td>
<td>MATHCOUNTS Chapter</td>
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<tr>
<td>Tuesday, February 8</td>
<td>AMC10/12 A-date</td>
</tr>
<tr>
<td>Saturday, February 12</td>
<td>HMMT</td>
</tr>
<tr>
<td>Wednesday, February 23</td>
<td>AMC10/12 B-date</td>
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<tr>
<td>Saturday, March 12</td>
<td>MATHCOUNTS State</td>
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<tr>
<td>Thursday, March 17</td>
<td>American Invitational Math Exam (AIME)</td>
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<tr>
<td>Saturday, April 2</td>
<td>NYSML</td>
</tr>
<tr>
<td>Wednesday, April 27</td>
<td>12:30pm USA Math Olympiad (USAMO)/JMO</td>
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<tr>
<td>Thursday, April 28</td>
<td>12:30pm USA Math Olympiad (USAMO)/JMO</td>
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<tr>
<td>Saturday, June 4, 2011</td>
<td>ARML</td>
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Showing events until 7/15. [Look for earlier events](#)
Happy Prime New Year!

Jim Tanton tweets:

For what it is worth ... 2011, prime, is also the average of two primes: \((1993 + 2029)/2 = 2011\).

If you start to look for other primes that are also average primes, you may stumble into some fascinating conjectures related to various forms of the Goldbach conjecture.
and Beyond...
Welcome to the Ithaca Math Circle!

Our next meeting will be on Sunday, **January 9**, from 2 - 3:30 PM. The location is 310 Rhodes Hall, Cornell.

Faculty advisors: Mr. Deppe, Ithaca High School; Prof. Lang Tong, Cornell University.

The math circle meetings focus primarily on preparation for math contests, including the AMC, through creative and challenging problem-solving.

We also explore fields of mathematics not seen in school (such as proofs, number theory, and combinatorics).

"A mathematician, like a painter or a poet, is a maker of patterns." G. H. Hardy
Links

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Thank You!

Japheth Wood <japheth@nymathcircle.org>