

Visit the NAMC/SIGMAA-MCST MathFest Booth to try out different mathematical outreach activities and talk to Math Circle leaders about their Math Circle experiences.

**10:00 am - Noon. Thursday, August 4, 2016**

### Stomp Rockets

Stomp rockets are great for STEM outreach events. Students construct rockets out of construction paper and then hypothesize which rocket will go the highest. Using mathematics the students can then work together to calculate the height of their rocket flights.



**1:00 pm - 5:45 pm. Thursday, August 4, 2016** (Franklin C)

### SIGMAA-MCST Contributed Paper Session

**My Favorite Math Circle Problem** - see inside pages for more details

Thursday 6:00 – 8:00 pm

Join us for the **NAMC Math Circle Happy Hour** – Location TBA.

**10:00 am - Noon. Friday, August 5, 2016**

### Four Square Problem

This problem is perfect for students who need practice in basic arithmetic and are up for a challenge. The students repeat subtraction over and over again and the more they engage in the game the harder subtraction problems they will assign to themselves.



**2:00 pm - 4:00 pm. Friday, August 5, 2016**

### Mathematical Tiling

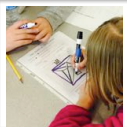
Tiling allows us to mathematize the world around us, providing game play with classroom tile floors or kitchen counters. The nice aspect of doing tiling while doing mathematical outreach is how nicely challenge activities can be provided for students who understand the basic game and are ready to take it to the next step.



**10:00 am - Noon. Saturday, August 6, 2016**

### Criss-Cross

Criss-Cross is a game presented by S. Vandervelde in his *Circle in a Box* book of Math Circle activities and planning documents. The game is approachable by students of various backgrounds and easily scaffolded up or down depending on students' interests

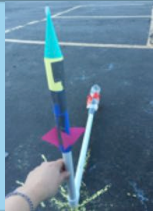





For more information about these activities visit

<https://www.mathcircles.org/content/quick-activities-mathematical-outreach-events>

# Interested in Mathematical Outreach?

*Stop by the NAMC/SIGMAA-MCST Booth and learn about quick and fun outreach activities!*

Thursday 10:00 am - Noon	Friday 10:00 am - Noon	Friday 2:00 pm – 4:00 pm	Saturday 10:00 am - Noon
Stomp Rockets	Four Square Problem	Mathematical Tiling	Criss-Cross
			



## Discover Math Circles!



<https://www.mathcircles.org/content/mathfest-2016>

## Math Circle Events at MathFest 2016

**Wednesday, August 3**

6:00 pm - 8:00 pm: Grand Opening Exhibit Hall Reception (Exhibit Hall)

**Thursday, August 4**

9:00 am - 5:00 pm: Visit the NAMC Booth (Exhibit Hall)

1:00 pm - 5:45 pm: SIGMAA-MCST Contributed Paper Session:

My Favorite Math Circle Problem (Franklin C)

6:00 pm - 8:00 pm: NAMC Math Circle Happy Hour (Location TBA)

**Friday, August 5**

9:00 - 5:00 pm: Visit the NAMC Booth (Exhibit Hall)

**Saturday, August 6**

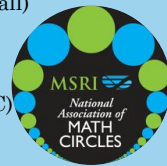
9:00 am - 12:00 pm: Visit the NAMC Booth (Exhibit Hall)

1:00 pm - 1:50 pm: Special Presentation for High School Students, Parents, and

Teachers: The Astounding Mathematics of Bicycle Tracks (Hayes)

2:00 pm - 3:30 pm: SIGMAA-MCST Math Teachers' Circle Demo (Morrow)

4:00 pm - 5:30 pm: Math Wrangle (Morrow)



**For additional Math Circle resources visit these organizations' websites:**

\* National Association of Math Circles: <http://mathcircles.org>

\* NAMC on Facebook: <http://www.facebook.com/MathCircles>

\* SIGMAA-MCST: <http://sigmaa.maa.org/mcst>

\* Math Teachers' Circle (MTC) Network: <http://mathteacherscircle.org>

## SIGMAA-MCST Contributed Paper Session My Favorite Math Circle Problem

**Thursday,  
August 4<sup>th</sup>  
1:00 – 5:00 pm**  
Location:  
Franklin C

A Math Circle is an enrichment activity for K-12 students or their teachers, which brings them into direct contact with mathematically sophisticated leaders, fostering a passion and excitement for deep mathematics in the participants. Math Circles combine significant discovery and excitement about mathematics through problem solving and exploration. Talks in this session will address a favorite problem or topic that was successful with a Math Circle audience.

**Organizers:**

**Katherine**

**Morrison**, *University of Northern Colorado*

**Philip Yasskin**, *Texas A&M University*

See abstracts online, <https://www.mathcircles.org/content/mathfest-2016>

- 1:00 – 1:15 pm Tiling with Pentagons  
Judith Covington, *LSU Shreveport*
- 1:20 – 1:35 pm The Check is in the Mail  
Mary Garner, *Kennesaw State University*  
Virginia Watson, *Kennesaw State University*
- 1:40 – 1:55 pm Measuring Up: Perfect Rulers  
Chris Bolognese, *Columbus Academy*  
Raj Shah, *Math Plus Academy*
- 2:00 – 2:15 pm First Survey of National Association of Math Circles  
Diana White, *University of Colorado Denver*  
Brandy Wiegers, *Central Washington University*
- 2:20 – 2:35 pm Group Discussion
- 2:40 – 2:55 pm Using Tools to Communicate in Math Teacher' Circle  
Sandra Richardson, *National Science Foundation*
- 3:00 – 3:15 pm Making Infinitely Many Mistakes Deliberately – Iteration  
Robert Sachs, *George Mason University*
- 3:20 – 3:35 pm Fractals: Theory, Application – and Business Cards?  
Douglas Meade, *University of South Carolina*

## SIGMAA-MCST Contributed Paper Session My Favorite Math Circle Problem (cont'd)

- 3:40 – 3:55 pm Stimulating math curriculum for students from challenging socio-economic backgrounds  
Alessandra Pantano, *University of California, Irvine*
- 4:00 – 4:15 pm Visualize the Two Conjugate Complex Roots for Quadratic Equations  
Li Feng, *Albany State University*  
Janis T. Carthon, *Albany State University*  
Courtney L. Brown, *Albany State University*
- 4:20 – 4:35 pm Projective Geometry Hidden Inside: Can you Spot it!?  
Thomas Clark, *Dordt College*
- 4:40 – 4:55 pm The Mathematics of Shidoku  
Crystal Lorch, *Ball State University*  
John Lorch, *Ball State University*
- 5:00 – 5:15 pm Pirate Zombie Math  
Angie Hodge, *University of Nebraska Omaha*
- 5:15 – 5:45 pm AIM MTC-Net, and MSRI NAMC Discussion
- 6:00 – 8:00 pm Post-CPS Happy Hour, hosted by NAMC. Location TBA

## Join us for these additional SIGMAA-MCST events on Saturday, August 6<sup>th</sup>

- 1:00 – 1:50 pm Special Presentation for High School Students, Parents and Teachers: The Astounding Mathematics of Bicycle Tracks  
James Tanton, *Ambassador for the Mathematical Association of America*
- 2:00 – 3:30 pm Math Teachers' Circle Demonstration  
*Morrow*  
Amanda Sereney, *Riverbend Community Math Center*  
Bob Klein, *Ohio University*
- 4:00 – 5:30 pm Math Wrangle  
*Morrow*  
Mark Saul, *American Math Competitions*  
Ed Keppelmann, *University of Nevada*

More details at <https://www.mathcircles.org/content/mathfest-2016>