

# JMM 2023

## SIGMAA on Math Circles for Students and Teachers

(SIGMAA-MCST)

### Resources and News for Math Circle Leaders

Math Circle Network	<a href="https://mathcircles.org/">https://mathcircles.org/</a>
Math Circle Special Interest Group of the MAA, Website	<a href="http://sigmaa.maa.org/mcst/">http://sigmaa.maa.org/mcst/</a> <i>session resources will be shared here</i>
Journal of Math Circles	<a href="https://digitalcommons.cwu.edu/mathcirclesjournal">https://digitalcommons.cwu.edu/mathcirclesjournal</a>

### Math Circle Related Events at JMM 2023

- **Wednesday January 4, 8:30am-12:00pm**
  - [AMS-SIGMAA MCST Special Session](#): *Math Circle Activities as a Gateway into Mathematics I*, Room 109, Hynes Convention Center (See details below)
  - Organizers: **Lauren Rose**, Bard College, **Brandy Wieggers**, Central Wash Univ, **Gabriella Pinter**, Univ of Wisconsin, Milwaukee, **Nick Rauh**, Julia Robinson Math Festivals
- **Wednesday January 4, 1pm - 5:30pm**
  - [AMS-SIGMAA MCST Special Session](#): *Math Circle Activities as a Gateway into Mathematics II*, Room 109, Hynes Convention Center (See details below)
- **Thursday January 5, 8:30am-12:00pm.**
  - [AMS-SIGMAA MCST Special Session](#): *Math Circle Activities as a Gateway into Mathematics III*
  - Room 109, Hynes Convention Center (See details below)
- **Thursday January 5, 8:00 p.m.-9:30 p.m.**
  - [AIM Math Circles Reception](#)
  - Salon JK, Marriott Copley Place
  - Organizers: **Brianna Donaldson**, American Institute of Mathematics
- **Friday January 6, 2:00 p.m.-3:30 p.m.**
  - [Learn About Math Festivals with JRMF](#)
  - Commonwealth, Sheraton Boston Hotel
  - Organizers: **Daniel Kline**, Julia Robinson Mathematics Festival
- **Saturday January 7, 9:00 a.m.-12:00 p.m.**
  - [Julia Robinson Math Festival](#)
  - Hall C, Hynes Convention Center
  - Organizers: **Daniel Kline**, Julia Robinson Mathematics Festival

**AMS-SIGMAA MCST Special Session: *Math Circle Activities as a Gateway into Mathematics I, II, III***: Room 109, Hynes Convention Center

Detailed Schedule:

### Wed January 4, 2023, 8:30 a.m.-12:00 p.m.

8:30 a.m: *Can we fix it? Adventures into structural stability*

**Istvan G Lauko, Gabriella A. Pinter\***, University of Wisconsin, Milwaukee

9:00 a.m: *Fighting for Independence with 0, +1, and -1*

**Edward Charles Keppelmann\***, University of Nevada Reno

9:30 a.m: *Exploring prime numbers and the abc conjecture*

**David Patrick\***, Art of Problem Solving

10:00: Break, get to know one another

10:30 a.m: *Dividing Space: First Day Activity for Math Camp and for Linear Algebra (and other courses)*

**Teresa D Magnus\***, Rivier University, Nashua NH

11:00 a.m: *Prolonging the pendulum: an additive activity*

**Michael D. Barrus\***, University of Rhode Island

11:30 a.m: *Finding patterns in visual problems: Examples from Graph Theory*

**Moshe Cohen\***, State University of New York At New Paltz

### Wed January 4, 2023, 1:00 p.m - 5:30 pm

1:00 p.m: *Let's have fun! Mathematical games for math circles*

**Rachel Stahl\***, Bridgewater State University

1:30 p.m: *Tiling a Chessboard: A Problem Adapted for the Virtual Math Circle*

**Christina Duron\***, Pepperdine University, **John Peca-Medlin**, University of Arizona

2:00 p.m: *Pennies on a Chessboard*

**Jeffrey Musyt\***, Slippery Rock University

2:30 p.m: *Solution to Instant Insanity*

**Michele Gribben\***, McDaniel College  
(1183-10-22320)

3:00 p.m: *Quads: A SET-like game with a twist*

**Lauren L. Rose\***, Bard College

3:30pm: Break, get to know one another

4:00 p.m: *Fair is Fair, As Long As It's Not Too Unfair: The Apportionment Problem*

**Jeff Suzuki\***, Brooklyn College

4:30 p.m: *Using the Journal of Math Circles*

**Brandy S. Wieggers\***, Central Washington University

5:00 p.m: *Impacts of presentation of higher-level mathematics topics to freshman students with hands-on activities with an emphasis on topology*

**Bartu Bingol\***, University of Massachusetts Amherst, **Dr. Melodi Ozyaprak**, No affiliation.

**Thursday January 5, 2023, 8:30 a.m.-12:00 p.m.**

8:30 a.m: *Clock Buddies: An Engaging, Open-Ended Group Scheduling Activity*

**Debra K Borkovitz\***, Boston University

9:00 a.m: *Engaging Children from Around the World in Mathematics using Magic Squares*

**Tifin Marie Calcagni\***, Global Math Circle, **Campo Elias Suarez**, CIRCOAP

9:30 a.m: *Activities for Virtual Classroom Visits*

**Nick Rauh\***, Julia Robinson Math Festivals

10:00 am: Break, get to know one another

10:30 a.m: *Symmetry, Surfaces, and Knots: Geometry Activities for Middle School Students in Math Circles*

**Marco Aldi, Christine L. Bae, Bailey Bontrager, Allison H Moore, Visala Rani Satyam\***,  
**Nicola Tarasca**, Virginia Commonwealth University

11:00 a.m: *Just Don't Tell Them What It Is - On Teaching Abstract Algebra to Middle School Math Circle Students*

**Sheila K. Miller Edwards\***, University of New Mexico, Taos

11:30 a.m: *Modeling complex behavior from simple rules: Cellular automata for Math Circles*

**Mark Hughes\***, Brigham Young University