

KYMAA Newsletter

Winter 2021

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KYMAA Calendar

Mar 05 Distinguished Teaching Award Nominations
 Mar 10 Abstract Submissions
 Mar 12 Officer Nominations
 Mar 19 Preferred Registration
 Mar 26 [KYMAA Conference](#)

Regional Conferences

Mar 06 [MAA-SE](#) (virtual)
 Mar 07 [KCM](#) (virtual)
 Mar 12 [IL MAA](#) (virtual)
 Mar 26 [MO MAA](#) (virtual)
 Mar 26 [OH MAA](#) (virtual)
 Mar 27 [IN MAA](#) (virtual)
 Apr 09 [Allegheny MAA](#) in Edinboro, PA
 Sep 24 [Miami \(OH\) Conference](#)
 Sep 25 [IN MAA](#) in Notre Dame

National Conferences

Jul 19 [SIAM Annual](#) in Spokane
 Aug 04 [MAA Mathfest](#) in Sacramento
 Aug 07 [ASA JSM](#) in Seattle
 Sep 22 [NCTM](#) in Atlanta
 Oct 28 [SACNAS](#) in Kansas City
 Oct 28 [AMATYC](#) in Phoenix
 Jan 05 [JMM](#) in Seattle

Have mathematical events you'd like included in the calendar? Email the [Newsletter Editor](#).

Mathematics for a Better World

Last year's 1st annual, UNESCO proclaimed International Day of Mathematics celebrated that "Mathematics is Everywhere." This year's theme is "Mathematics for a Better World" and event information is available at <https://www.idm314.org/>



Reflecting on the last year brings many examples to mind, including

- informing the public about the spreading pandemic^a,
- engaging students with social justice issues^b,
- supporting our democratic system by quality-checking the Census^c and examining congressional districting^d, and
- advocating for improved voting methods including ranked choice^e (aka instant runoff), approval^f, and score^g (aka range).

Recently, I've been reading more about alternative voting methods; here's an intro text for the interested reader^h. It may not be surprising that the choice of voting method can change the outcome of an election, but the extent of disparity that is possible among methods certainly surprised me. As a "proof-by-example", under the voter preferences below plurality elects A, plurality with runoff elects B, instant runoff elects C, Borda elects D, Condorcet elects E, approval (votes in **bold**) elects F, and score could elect anyone depending on voters' selections^g.

# Votes	Candidate Preference
4	A > D > E > C > B > F
3	B > E > D > F > C > A
2	C > B > E > D > F > A
1	D > C > F > A > E > B
1	F > C > E > D > B > A

As mathematical literacy retains its value in our complex world, I hope that engaging with students in the mathematics of current topics (like alternative voting methods) contributes to mathematically-informed decisions toward a better world.

Axel Brandt
Northern Kentucky University

^a<https://coronavirus.jhu.edu/map.html>

^b<http://www.radicalmath.org>

^c<https://www.amstat.org/ASA/News/Updates-on-the-2020-Census-Quality-Indicators.aspx>

^d<https://magg.org/>

^e<https://www.fairvote.org/>

^f<https://electionscience.org/>

^g<https://www.rangevoting.org/>

^h<http://www.opentextbookstore.com/mathinsociety/2.5/VotingTheory.pdf>

Call for Nominations

Distinguished Teaching Award

Nominations for the KYMAA Distinguished Teaching Award are being accepted by the selection committee through

Friday, March 5.

Nominating a colleague consists of emailing a single letter of recommendation and biographical form to the [KYMAA Secretary](#). More detailed information is available at the [KYMAA website](#).

KYMAA Officers

KYMAA is seeking officers to 2-year terms for the positions of

Chair-Elect and Treasurer.

KYMAA is seeking officers to 3-year terms for the positions of

Secretary, Student Chapters Coordinator, and AMC Coordinator.

KYMAA is seeking an officer to a 1-year term for the position of

Newsletter Editor.

Duties for each position are described in the [KYMAA Bylaws](#). Officers must be members of the MAA Kentucky Section, and can volunteer or be nominated in advance of the spring meeting via email by sending name, contact information, and a short biographical sketch to the nominations committee on or before

Friday, March 12.

KYMAA Nominations Committee

We encourage anyone with questions about officer positions to contact a member of the nominations committee.

Doug Chatham
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Elizabeth Donovan
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Robert Reihemann
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Tom Richmond
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John Wilson
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john.wilson@centre.edu

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Student Challenge Corner

2021.1: How many integer solutions does $x^2 + y^2 + z^2 = x^3 + y^3 + z^3$ have? Prove it!

Students: Think you've figured it out? Write up your answer and email it to the [Newsletter Editor](#). Submissions received on or before **April 2, 2021** will be recognized alongside one correct submission selected to be published in the next newsletter.

Faculty: Have a challenge to contribute or willing to help review submissions? Email the [Newsletter Editor](#) to be included!

Annual KYMAA Conference

to be held **March 26-27** in a **virtual** format.

To ensure sufficient time to construct the program, conference organizers request that you have your

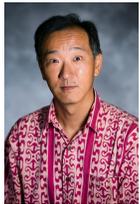
Abstract Submitted on or before **Wednesday, March 10**.

Contributed talks should allow time for questions during their scheduled 15 minute slot. All speakers and attendees must register for the conference. Registration is **FREE** for students, and **\$5** otherwise. Although attendees are able to register at any time up to and even during the conference, organizers would

Prefer Registration on or before **Friday, March 19**.

A link to register, as well as more conference details will be posted at [KYMAA Meetings Webpage](#). Due to the virtual format, this year's schedule may differ slightly from previous years. However, contributed talks are unlikely to begin before the typical start time of 3 pm on Friday afternoon.

We are excited to welcome this year's invited speakers. They are:



Ken Ono

University of Virginia

Why Does Ramanujan, “The Man Who Knew Infinity,” Matter?

Prof. Ken Ono is the Thomas Jefferson Professor of Mathematics at the University of Virginia, the Asa Griggs Candler Professor of Mathematics at Emory University and Vice President of the American Mathematical Society.



Talithia Williams

Harvey Mudd College

Data-Driven Decision Making: Now and Imagined

Statistician Talithia Williams is an innovative, award-winning Harvey Mudd College professor, a co-host of the PBS NOVA series, "NOVA Wonders" and a speaker whose popular TED Talk, Own Your Body's Data, extols the value of statistics in quantifying personal health information.

As a result of canceling last year's conference, we are featuring talks by KYMAA Distinguished Teaching Award winners for the past two years. They are:



Lisa Holden

Northern Kentucky University

26 Years of Teaching: A Series of Fortunate Events

Lisa Holden joined Northern Kentucky University in 2002 and became associate professor in 2013. She has directed a number of undergraduates in research projects with backing that includes the MAA/SIAM PIC Math program.



Jeffrey Heath

Centre College

TALK TITLE TBD

Jeffrey Heath joined Centre's faculty in 2007, and became associate professor of mathematics in 2013. He was named a Centre Scholar in 2011, and received the Kirk Award for excellence in teaching in 2019.



The mission of the Mathematical Association of America is to advance the mathematical sciences by:

- supporting effective mathematical education at all levels,
- supporting research and scholarship,
- providing professional development,
- influencing public policy, and
- promoting public appreciation and understanding of mathematics.



The Kentucky Section of the Mathematical Association of America is devoted to promoting and encouraging the study, the teaching, and the learning of mathematics in the state of Kentucky.

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Links of Potential Interest

maa.org

sections.maa.org/kentucky

mathcareers.maa.org

mathprograms.org