

**29th Annual
Kansas City**

**MATHEMATICS
TEACHING
TECHNOLOGY
EXPO**

*Friday & Saturday
October 4 – 5, 2019*

**PRELIMINARY PROGRAM
& REGISTRATION**

www.kcmathtechexpo.org

**29th Annual
Kansas City
Mathematics Teaching Technology EXPO**

**3rd floor Haag Hall, University of Missouri – Kansas City,
Kansas City, MO**

Friday & Saturday, October 4 – 5, 2019

*We thank Johnson County Community College for
funding the paper and printing of mailings and handouts.*

FRIDAY, October 4, 2019

EXPO Registration: Friday, 8:00 am – 2:00 pm

Complimentary continental breakfast 3rd floor Haag Hall registration area

SESSION 1: Introductions and Keynote Speaker

Friday, 8:30 am – 9:50 am

Creating Interesting Ways for Students to be Right and Wrong

Eli Luberoff, Desmos

Correct math depends on right answers. But meaningful math celebrates both right and wrong answers, allowing students to intrepidly explore and express their reasoning in varied and interesting ways. In this session, we'll examine high- and low-tech ways for teachers to celebrate diverse work and build on student thinking in every form.

SESSION 2: *Friday, 10:00 a.m. – 10:45 a.m.*

2A. *Algebra in Special Visual Effects in Movies and Video Games*

Cynthia Huffman, Pittsburg State University, Pittsburg, KS

2B. *Use of RStudio's R-Notebooks for Creating Interactive Content for Statistics Courses*

Bekah Selby, Emporia State University, Emporia, KS

2C. *Using Video-Conferencing Software to Teach Online*

Stephanie Kajpust, Grantham University, Lenexa, KS

SESSION 3: *Friday, 10:45 a.m. – 11:30 a.m.*

Exhibitors: This time is provided especially for EXPO participants to visit the Exhibitors and the MAA book sale in the 2nd and 3rd floor lobbies of Haag Hall. The Exhibitors Area will also be open at other times during the EXPO.

SESSION 4: *Friday, 11:30 am – 12:15 pm*

4A. *Rare and Historical Mathematics Books at Linda Hall Library*

Benjamin Gross & Cindy Rogers, Linda Hall Library

This is a hands-on special viewing of the books at Linda Hall Library arranged for the EXPO. It is not a tour. Participants may go anytime 11:30 – 12:15. (Will repeat at 3:30 Friday)

4B. *Lightning Talks*

- ***A Supplemental Tool for Learning Concepts in Discrete Mathematics***

Wen-Jung Hsin, Park University, Parkville, MO

- ***Designing Interactive Activities and Assessments in D2L's Brightspace Learning Management System***

Kristi Karber, University of Central Oklahoma, Edmond, OK

- ***A Quick Look at Google Jamboard***

Chad Wiley, Emporia State University, Emporia, KS

4C. Increasing Math Communication and Social Learning with Flipgrid

Emily Keffer, Olathe West High School, Olathe, KS

4D. *Letting the Students Know About the Pros and Cons of Step-by-step Online Calculators*

Majid Bani-Yaghoub, The University of Missouri-Kansas City, KCMO

LUNCH: *Friday, 12:15 pm – 1:30 pm*

Swinney Gym North Lobby

SESSION 5: *Friday, 1:30 pm – 2:15 pm*

5A. *First Steps to Creating a Mastery-Graded Class*

David Clark, Grand Valley State University, Allendale, Michigan

5B. *Digital Divide and Developmental Mathematics*

David Cobb, Donnelly College, Kansas City, KS

5C. *YaWPaW (Yet another WeBWork Problem-Authoring Workshop)*

Glenn Rice, Missouri Western State University, St. Joseph, MO

** Bring your own laptop for hands-on experience.

SESSION 6: *Friday, 2:30 pm – 3:15 pm*

6A. *Build a Better Gradebook With Pivot Tables*

Tom Mahoney, Emporia State University, Emporia, KS

6B. *Using Tinkercad to Design Tessellations for 3D Printing*

Nora Strasser, Friends University, Wichita, KS

6C. *TBA*

Possibly a WeBWork work time -- providing participants some time and assistance to get started or improve their WeBWork problems

POST-SESSION: *Friday, 3:30 pm*

PS A. *Rare and Historical Mathematics Books at Linda Hall Library*

Benjamin Gross & Cindy Rogers, Linda Hall Library

This is a hands-on viewing of the books, not a tour. Participants may go anytime 3:30 – 5:00. (This is a repeat of session 4A.)

PS B. *MAA-MO Project Next Fall Meeting*

Samuel Chamberlin, Park University,
& Azadeh Rafizadeh, William Jewell College

PS C & D. *KAMATYC* and *MOMATYC* will meet individually, and then all interested members will adjourn to supper together afterwards.

SATURDAY, October 5, 2019

EXPO Registration: *Saturday, 8:00 am – 11:00 am*

Complimentary continental breakfast 3rd floor Haag Hall registration area.

SESSION 7: Invited Speaker

Saturday, 8:30 am – 9:50 am

Lightweight Tech and Low Overhead Teaching

David Clark

Grand Valley State University, Allendale, Michigan

The latest and greatest technology will revolutionize our students' learning! But first, will it overload their brains? A class can easily become a conglomeration of (individually) great technologies that force students to focus on figuring out new apps and websites, rather than engaging with new ideas. We will look at ways to use lightweight "low overhead" technology to seamlessly support learning, without focusing your class on the tech itself.

SESSION 8: *Saturday, 10:00 am – 10:45 am*

Eli Luberoff, Desmos

Session title and abstract coming soon.

SESSION 9: *Saturday, 11:00 am – 11:45 am*

9A. ***Reading Mathematics: Improving with Technology***

Tom Mahoney, Emporia State University, Emporia, KS

9B. ***Moving Your Mathematics Courses Online***

Chad Wiley, Emporia State University, Emporia, KS

9C. ***Exploring the Four-Color Theorem with Free Content Available Online***

Lisa Erickson, MidAmerica Nazarene University, Olathe, KS

LUNCH and Brainstorming: *Saturday, 11:45 am – 1:00 pm*
in Pierson Hall

The EXPO 2019 Group

Chad Wiley (EXPO Chair), Emporia State University,
Emporia, KS

Adelaide Akers (Exhibitors), Emporia State University,
Emporia, KS

Richard Delaware (Financial Secretary and Site Coordinator; EXPO Chair
1993 – 1994), University of Missouri – Kansas City,
Kansas City, MO

Lisa Erickson (Publications), MidAmerica Nazarene University,
Olathe, KS

David Ewing (Special Speaker Contact), University of Central Missouri,
Warrensburg, MO

Rob Grondahl (Webmaster and Registration), Johnson County
Community College, Overland Park, KS

Nick Haverhals, Avila University,
Kansas City, MO

Kimberly Kinder, Missouri University of Science and Technology,
Rolla, MO

Tom Mahoney (Recording Secretary), Emporia State University,
Emporia, KS

Nora Strasser (Presiders), Friends University,
Wichita, KS

Ian Young (Mailing List), Grandview High School,
Grandview, MO

An advance registration form is on the back page of this booklet.

Location and Parking – VERY IMPORTANT!

- Neighborhood parking is limited, due to neighborhood covenants.
- Parking is free on the UMKC campus on **Saturday**.
- There is **no free parking** at UMKC on **Friday** without a hangtag. A free parking hangtag will allow you to park in any lot. The hangtag will be mailed to you if you register by Thursday, September 26, 2019. If you do not need it, please help keep the EXPO costs down by indicating this when you register.

Direct Elevated Walkway to Haag Hall (site of the EXPO) from the Parking Garage: On the 3rd floor of the parking structure just south of Haag Hall there is a direct walkway crossing over to the 3rd floor of Haag Hall.

Lunch Buffets on both Friday and Saturday are included with your EXPO advance registration.

Advance registrations are due by Thursday, September 26, 2019.

- Advance registration fee: \$85.00
- Registration fee at the EXPO: \$90.00
- College student registration fee: \$25.00

The advance registration fee includes two buffet lunches, two continental breakfasts, and free parking on both Friday and Saturday. A parking hangtag for Friday will be mailed.

Rare and Historical Mathematics Books at Linda Hall Library

There are two separate opportunities for hands-on viewing of over a dozen books. Examples: the 1482 first printed copy of Euclid's *Elements*, the 1696 first calculus textbook of L'Hôpital, books by Newton, Agnesi, Galileo, and more. The books displayed vary each year, but a few classics will always be present.

Textbook, Hardware, and Software Exhibitors, and the MAA book sale

2nd and 3rd floor lobbies of Haag Hall on Friday, 8:00 am – 2:45 pm and Saturday, 8:00 am – 11:45 am. Not all exhibitors will be present on Saturday. EXPO exhibitor contact:

Adelaide Akers, aakers1@emporia.edu.

Registration at the EXPO is on the 3rd floor of Haag Hall

For further information about the EXPO, contact **Chad Wiley**,
Math EXPO Chair, cwiley1@emporia.edu.

For specific questions about registration, contact **Rob Grondahl**,
rgrondahl@jccc.edu.

View a video of our EXPO home at UMKC. Point your browser to
www.kcmathtechexpo.org, hover over “Location and Parking,” and
choose “Site Video tour”.

Housing Information – Don’t delay! See the EXPO web site,
www.kcmathtechexpo.org, and click on “Hotel Information”.

A complimentary continental breakfast will be available in the Haag
Hall 3rd floor lobby registration area both Friday and Saturday mornings.

Door prizes will be awarded following both the Keynote Speaker and
the Invited Speaker talks.

Extra copies of handouts from talks are placed in the lobby area
of 3rd floor Haag Hall.

Need a shuttle from the KCI airport? See
[http://www.flykci.com/getting-to-from/ground-transportation/shuttle-
services/](http://www.flykci.com/getting-to-from/ground-transportation/shuttle-services/).

Interested in other events or activities in Kansas City after hours?
See <https://www.visitkc.com/visitors/events>, and in particular,
Crossroads Arts District First Fridays, at
<http://kccrossroads.org/first-fridays/>.

MATHEMATICS TEACHING TECHNOLOGY EXPO 2019

Registration Information

Advance registration fee: **\$85.00**

Registration fee at the EXPO: **\$90.00**

College student registration fee: **\$25.00**

Each advance registration fee includes two buffet lunches, two continental breakfasts, and free parking on both Friday and Saturday.

Advance registrations are due by **Thursday, September 26, 2019**.

Either:

- (1) **MAIL** the registration form to: Rob Grondahl, Johnson County Community College, Overland Park, KS 66210, **or**
 - (2) **Register online** at: www.kcmathtechexpo.org
-

Payment Options:

- Online, using a credit card through PayPal.
- By US mail with a check, payable to "Math EXPO 2019".
- At the EXPO, with cash, check, or credit card.

**→ No refunds on advance registrations after ←
Tuesday, October 1, 2019**

Registration receipts will be placed in your EXPO packet.

Friday Parking hangtags will be mailed to you if you register before September 26, and provide a complete address.

Donations: The EXPO is recognized by the IRS as a 501(c)(3) non-profit organization. Any donations by an individual or business are therefore tax-deductible since no goods or services are received in exchange. (Note: EXPO registration is not tax deductible.) Donations can be made to the EXPO either on our website, or with the registration form at the right. A receipt for donations indicated on the registration form will be given in the EXPO packet.

MATHEMATICS TEACHING TECHNOLOGY EXPO 2019
Advance Registration Form

Advance registrations are due by Thursday, September 26, 2019.
Submit your advance registration by **one** of these two methods:

(1) Complete the form below and mail it to:
Rob Grondahl,
Box 29
Johnson County Community College
12345 College Blvd.
Overland Park, KS 66210, **or**

(2) Register online at www.kcmathtechexpo.org. If you register online, a charge to your credit card will appear on your monthly statement from PayPal.

Name: _____
School: _____
Mailing address: _____
_____ [] home [] school
Daytime phone: _____
E-mail Address: _____

The EXPO 2019 Participant List will be compiled and a copy will be in each participant packet at the EXPO.

- If you do **not** want any of your information that is stated above to be printed in the Participant List, check here [].
- If you want **just your name** printed, check here [].

General advance registration: _____ registration(s) @ \$85.00 = _____
Speaker registration: _____ registration(s) @ \$60.00 = _____
Student registration: _____ registration(s) @ \$25.00 = _____
Tax deductible donation to the EXPO = _____
TOTAL Enclosed (Checks payable to: *Math EXPO 2019*) = _____

Check all appropriate boxes:

- [] I will attend the free lunch: [] Friday [] Saturday
[] I will NOT need a free parking hangtag for Friday
[] I have enclosed a check.

Johnson County Community College

Attn: Box 29 Erickson

12345 College Blvd.

Overland Park, KS 66210-1299