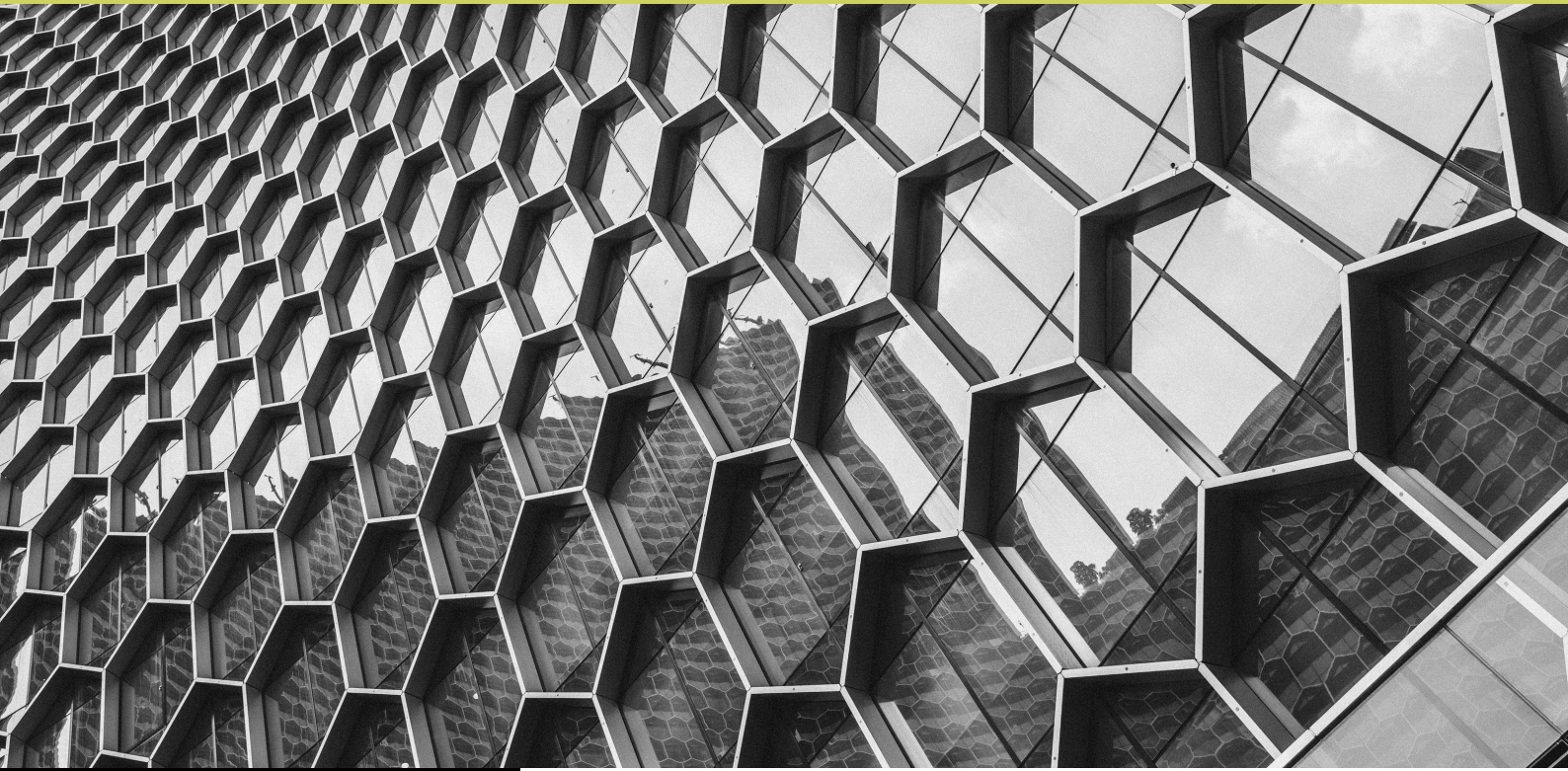


OCTOBER 2021, ISSUE 3

QED QUARTERLY

The Newsletter of CU Boulder Math Club



THIS ISSUE FEATURES:

- Scholarship winners - page 2
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TIME TO TAKE ACTION

STEM Industry Career & Internship Fair

The STEM Industry Career & Internship Fair is ideal for students who are seeking internships or full-time positions. Employers will be recruiting for computer science, robotics, math, statistics, technology and all engineering fields.

CU Boulder students and alumni from all majors, experience levels and backgrounds are welcome to attend this FREE event.

Thursday, October 7 at 11:00am to 4:00pm (Virtual Event)

RSVP for the event in Handshake:

<https://boulder.joinhandshake.com/login>

2021-22 AWARDS

CONGRATULATIONS!

- **Sieglinde Talbott Haller Scholarship** (given annually to students in mathematics who show exceptional mathematical promise):
 - Korye Lockett
 - Tuscany Mccann
- **John H. "Jack" Hodges Scholarship Fund for Excellence in Mathematics** (given annually to advanced undergraduate students majoring in mathematics who has demonstrated the greatest promise in the mathematical sciences):
 - Cole Davis
 - Brooke Wei
- **Jack N. Hyatt Endowment in Mathematics** (for mathematics majors who plan on becoming secondary high school or junior high school math teachers):
 - Xiaoming Wang
- **Mr. and Mrs. J. Tour Scholarship** (established to benefit full-time senior-class students in the advancement of the study of physical sciences and engineering):
 - Raymond Cole
 - Teddy Gonzales
- **Adele V. Leonhardy Memorial Scholarship** (awarded annually to outstanding students who plan careers in teaching mathematics):
 - Mick Walker
- **Jim & Laura Marshall Scholarship** (given annually to the advanced undergraduate students majoring in mathematics who has demonstrated the greatest promise in the mathematical sciences):
 - Raymond Baker
 - Adam Claman
 - Xin Yuan
- **Marlene Massaro and David Pratto Scholarship** (awarded annually to exceptional upper-level undergraduate mathematics majors):
 - Emma Goodwill
 - Alan Yu
- **Colin Starkweather Scholarship in Mathematics** (C.S. is an economist specializing in financial markets and antitrust economics):
 - Huilin Han

QUEST EXPLORE DISCOVER

2021-22 QED t-shirts

Ernst Chladni (1756 – 1827) was a German physicist and musician sometimes called as father of acoustics. His work on acoustics involved a thin metallic plate whose surface was lightly covered with sand; a violin bow was used on the plate until the plate reached resonance, forming sand patterns; these lines are called Chladni figures. Chladni demonstrated the vibration patterns before Napoleon Bonaparte himself; Napoleon set a prize for the best mathematical explanation. Marie-Sophie Germain's answer, although rejected due to minor flaws, was the only entry with the correct approach: giving the mathematical theory of the vibration of an elastic surface.

Marie-Sophie Germain (1776 – 1831) was a French mathematician, physicist, and philosopher. As a woman, Germain was barred from attending École Polytechnique, but lecture notes were available to anyone who asked. Germain at age 18 obtained the lecture notes and sent her work to Joseph Lagrange, a faculty member. She used the masculine name Monsieur Le Blanc, "fearing the ridicule attached to a female scientist". Fortunately, Lagrange did not mind that Germain was a woman, and became her mentor. Before her death, Gauss had recommended that she be awarded an honorary degree, but that never occurred. Germain contributions include work on Fermat's Last Theorem, number theory, and the theory of elasticity. She died from breast cancer at the age of 55.

QED t-shirts honoring the work of Germain will be available at Math Club meetings starting November 2021.



Germain at age 14

Chladni figures



QUOD ERAT DEMONSTRANDUM



QUESTIONS?

Newsletter written by Dr. Divya Vernerey
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Students wanting to write for the
QED Quarterly should email
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INFORMATION RESOURCE

The CU Math Department website is a great resource for students. Within the Undergraduate Program tab, you can learn about our various undergraduate resources including Math Club events and tutoring/grading opportunities. Further there is information regarding both undergraduate research and undergraduate industry initiatives.

We highly suggest taking some time to explore all of this information to advocate for your undergraduate academic program!

<https://www.colorado.edu/math/>