

MATH EM@TICS

“All the ν 's fit to print”

Department of Mathematics | Ithaca College

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ν_0 : A Note from the Chair

Welcome to the inaugural issue of the Math Department newsletter! Many thanks to Dan Visscher for bringing it to life.

This semester has seen amazing efforts by the faculty in overhauling classes to move from face-to-face instruction to remote learning. It's been challenging but everyone rose to meet the challenge and it makes me proud to be a member of the department. Our current students deserve a lot of credit for adjusting to the situation and continuing to work hard learning statistics and mathematics.

Over the past year, several exciting things have occurred. Ted Galanthay and Matt Thomas have earned tenure and promotion to associate professor and

Aaron Weinberg earned promotion to full professor last May. This past fall, we launched our Data Science minor and have already enrolled a dozen students.

This May, we celebrate the retirement of Stan Seltzer after 35 years of teaching computer science, math, and stats at Ithaca College. He'll be sorely missed in the department and I know that IC will have a hard time filling the void of his tremendous service to the institution.

If we haven't heard from you in a while, drop me a note: dabrown@ithaca.edu

Take care and stay in touch!

Until next month...

Dave Brown, chairperson

ν_1 : Colloquium in the Cloud

Title: Gerrymandering
Speaker: Stan Seltzer
Time: Monday, April 20 at 4pm EDT
Location: **Zoom**
(ID: 953-140-47442, PW: 054046)

Every ten years the United States conducts a census, after which the 435 seats in the House of Representatives are apportioned to the states. The final step in all but the very smallest states that are entitled to one representative is the process of dividing each state into the appropriate number of congressional districts. (State, county, and municipal districts may also have to be redrawn.) When districting is done in a way intended to establish an unfair political advantage for a particular party or group by manipulating district boundaries, it is known as gerrymandering.

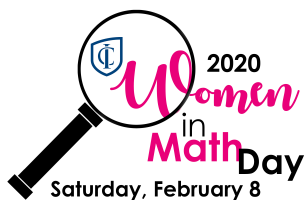
This brief introduction, based on the gerrymandering unit in Math, Fairness, and Democracy (MATH 16400), will include redistricting principles, gerrymandering strategies, historical and legal background, and some topics that are more mathematical: winner's bonus, partisan symmetry, efficiency gap, and measures of compactness. Also lots of pictures and quotes.



—Stan Seltzer

ν_2 : Women in Math Day

On Saturday, February 8 the 3rd Annual IC Women in Math Day was held. This program is supported by a MAA Tensor Grant for Women in Mathematics and



is a chance to focus on the important presence and contributions of women to the field of mathematics. The day consisted of an interactive session on paper folding and its applications to space travel by **Saramoira Shields** (Associate

Director for the NASA/NY Space Consortium), and a career panel that drew together women that use mathematics in their profession (including the Dean of H&S, **Melanie Stein!**). A variety of people attended the day: high school participants arrive with their teachers or parents, IC math majors volunteer to help facilitate, and volunteers from the community sit on the career panel.

—*Megan Martinez*



ν_3 : Digital Distractions

If you still have some screen time left today, check out...

Our department facebook page!

PLUS Magazine!

ν_4 : “Extra Credit”

In the figure below, the square is tangent to the circle and intersects the circle in four other points. If the perimeter of the square is 32, what is the area enclosed by the circle?

Send complete answers to Prof. Visscher at dvisscher@ithaca.edu. Correct solutions will be awarded 10 points “extra credit.”

ν_5 : What’s ν ?

ν (“nu”) is the 13th letter of the Greek alphabet. It is also used for:

- the matching number $\nu(G)$ of a graph G ,
- the degrees of freedom ν of a statistic,
- the function

$$\nu(x) \equiv \int_0^\infty \frac{x^t dt}{\Gamma(t+1)}.$$

*There once was a mathematician
who sought to prove a proposition
she thought and she thought
but it was all for naught
'til she thought to prove by contradiction.*

—D.V.