**This Week's Colloquium:**

**Pi Mu Epsilon's Fall Speaker!**

<table>
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<th><strong>Title:</strong></th>
<th>Linear Algebra is Everywhere! Groups, Products, Automorphisms, and Matrices</th>
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<tr>
<td><strong>Speaker:</strong></td>
<td>Jill Dietz</td>
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<tr>
<td><strong>Date:</strong></td>
<td>Monday, November 17</td>
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<td><strong>Time:</strong></td>
<td>3:30 - 4:30 pm</td>
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<td><strong>Location:</strong></td>
<td>RNS 310</td>
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**About the talk:** Much of Jill Dietz’ recent research and that of her students has focused on properties of “semi-direct products” of groups. In this talk she will gently lead the audience from ”clock arithmetic” to metacyclic groups, and from linear transformations to automorphisms of metacyclic groups. Along the way she will talk about group actions, different products of groups, and the role of linear algebra in these endeavors. Anyone who knows what functions and matrices are (e.g. anyone who has had a least a half-semester of Math 220) will be able to follow along for most of the talk; anyone who knows what groups are (e.g. anyone who has had a least a half-semester of Math 252) will know some of the secret details; and all will learn something new and interesting!

Jill earned her B.A. in mathematics from Brandeis University in 1986, and her Ph.D. from Northwestern University in 1991. After graduating, she spent four years at the University of Washington in Seattle and one year at Gettysburg College, then finally returned to her Minnesota roots. Her main mathematical interests are in algebra, algebraic topology, and convincing undergraduates to do research in these and other areas. Jill is an avid vegetarian who enjoys cooking, camping and hiking, throwing pots in her Dads studio, and crossword puzzles.

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**and for Your Reading Pleasure...**

a Stats Joke

Two old friends, Chris and Taylor were catching up after spending a year at different colleges. Chris asked Taylor how she had changed over the year, to which Taylor replied: "I used to think correlation implied causation. Then I took a statistics class. Now I don’t.”

"Sounds like the class helped” said Chris.

"Well, maybe.”

(credit to xkcd comics)

and a Riddle

Has a mouth, but cannot drink.

Has a head, but cannot think.

Has a tongue, but not a lung.

Some are held and some are hung.

What is it?

(The answer can be found in the next Mess!)

(Last week’s answer: bookkeeper)

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Editor-in-Chief: Zach Greimann  
Faculty: Joe Benson  
Mess Czar: Patty Martinez

If you would like to submit an article or event to be published in the Math Mess, e-mail greimann@stolaf.edu