

MATH and PIZZA

The Music of Group Theory

Speaker

Bonnie Smith

University of Kentucky

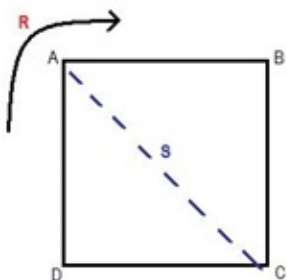
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$$\langle x, a | a^4 = x^2 = 1, xax^{-1} = a^{-1} \rangle$$



*All students
with an interest in Mathematics
are welcome to attend!!*

Date: Wednesday, November 30, 2011

Time: 4:00pm - 5:00pm

Room: 212, Classroom Building

Abstract:

What is the connection between chord progressions in music, and groups of permutations?

We will see how musical techniques such as transposition and inversion can be identified with rotations and reflections of a polygon. We will also see what we can learn from wrapping all of the different keys around a donut, try hearing the group theory at work, and have Beethoven show us an existence proof.

No musical background is needed, but it will be helpful if you have had MA 361.

This talk is based on a paper by A. Crans, T. Fiore, and R. Satyendra that was awarded the 2011 Merten M. Hasse Prize by the Mathematical Association of America.

UK Math Club

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