

VCU Discrete Mathematics Seminar

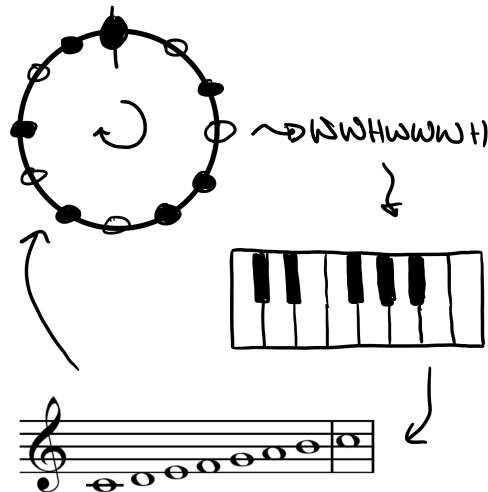
Combinatorial Music Theory

**Prof Neal Bushaw
(VCU!)**

Wednesday, Sept. 27
1:00-1:50 EST

In person! in 4145 Harris Hall, and Zoom @

<https://vcu.zoom.us/j/92975799914>
password=graphs2357



Leibniz said that “Music is the pleasure the human soul experiences from counting without being aware that it is counting.” In this talk, we’ll do some of Leibniz’ unconscious counting, exploring mathematical problems that arise in music theory. How do we decide what it means to be “in tune”? How many different scales are there? Why does every band student learn about the circle of fifths, and never the circle of sixths? Was Fibonacci a musician? We will connect this to new research on maximally even sets.

Although this talk is in the discrete math seminar, we’ll see some calculus, some number theory, some algebra, and some physics along the way. This talk is intended for a general audience, and will not assume any particular background whatsoever.

For the DM seminar schedule, see:

<https://go.vcu.edu/discrete>