

## **Atari & the Multiverse of Doughnuts**

October 27th • 7:00 p.m. • Lipinsky Hall Auditorium

FREE AND OPEN TO EVERYONE



## LECTURE BY AUTUMN KENT '99

Autumn Kent is a professor of mathematics at the University of Wisconsin - Madison. She grew up in Goldsboro, North Carolina and graduated from UNC Asheville in 1999, with a BA in Literature and Mathematics.

In Atari's Asteroids, when you fly off the top of your TV, you reappear from the bottom. When you fly off the right, you reappear from the left. The top of TV is "glued" to the bottom, making a cylinder, and the left end of the cylinder is "glued" to the right end, making a doughnut. The Asteroids universe is a doughnut.

If we took the ship captain out of her universe, and marooned her in a new one, would she be able to tell? Could different TVs give her the same universe? Are there directions she can fly that take her to every point in her universe? These are basic versions of questions that mathematicians study. We'll go on a trip through this multiverse of doughnuts, and see what we find.

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