

# The Shape of Data:

## An Introduction to Topological Data Analysis

What: Bi-State Math Colloquium

When: Thursday, October 5, 4:00PM

Where: Loras College, Hennessy 250

Who: Maria Gommel

What does it mean for data to have "shape"? Can this idea of "shape" help us better analyze data? In this talk, I will introduce some basic ideas of algebraic topology that allow us to describe the "shape" of a data set, and discuss how these ideas can help us analyze data. We'll also see an example of how these techniques have been applied to fMRI brain data. This talk is entirely self-contained and appropriate for undergraduates at any level.

Maria Gommel is a mathematics graduate student at the University of Iowa.