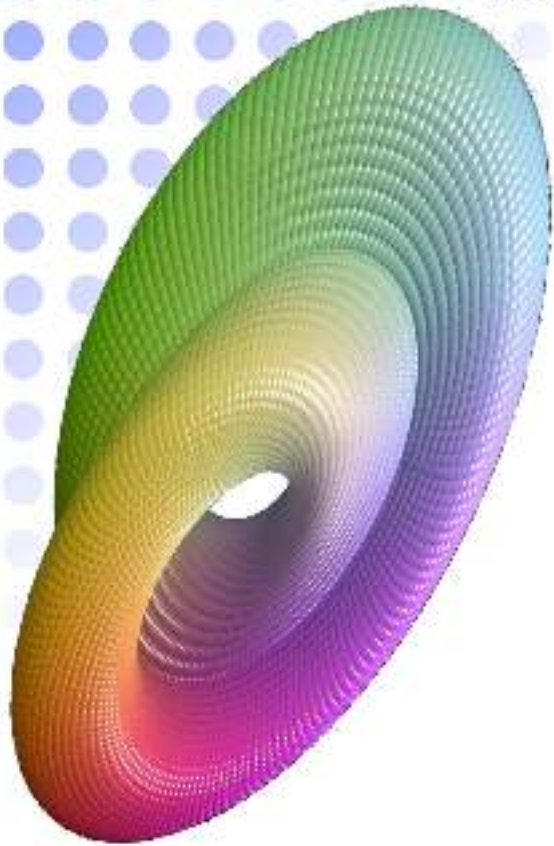


# Michigan Math Club

Thursday at 4pm in the Nesbitt Room

Free Pizza and Pop



Where has all the air in my  
basketball gone? Odd phenomena  
from high-dimensional geometry

Beatrice-Helen Vritsiou

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Most of us must have at least once heard a physicist or a mathematician talk about spaces with many dimensions: 4D or even higher, much higher! Imagine living in such a high-dimensional space and wanting to fill up a high-dimensional basketball with air. Then the air would cover up the inside of the ball in funny ways: much less air would be found around the center of the ball, much more closer to the surface. Also, most of it would be very near the equator, for any equator! In this talk we will discuss this and other related strange phenomena (often grouped together under the name "concentration of measure"), and we will also see how they sometimes help make our life easier here in 3D.