

## **Curvature and the shape of the universe**

**Chikako Mese**  
**Department of Mathematics**  
**Connecticut College**  
**cmes@conncoll.edu**

### **Abstract**

We may have an intuitive idea of what it means for surfaces to be curved, but what does it mean for higher dimensional spaces to be curved? In this talk, we will try to quantify curvature on a surface and try to extend this notion to three-dimensional spaces. We will show that with an understanding of curvature, we can make sense of a universe which is finite but without boundary.