

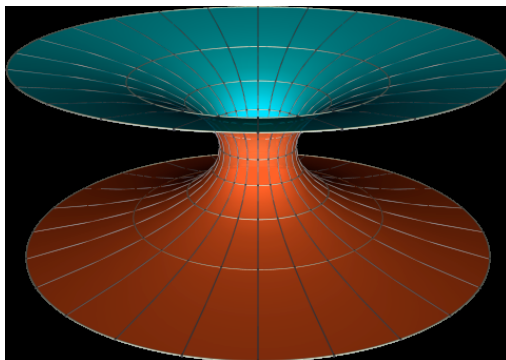
# DIFFERENTIAL GEOMETRY

## Math 0761, Summer 2010

Prof. Marcello Lucia  
marcello.lucia@csi.cuny.edu

Differential geometry is a mathematical discipline that uses the methods of differential and integral calculus, as well as linear algebra, to study problems in geometry.

A fundamental contribution to the theory of surfaces was made by Gauss in 1825. His papers contain practical calculations of the curvature of the earth based purely on measurements on the surface of the planet. He considered properties of surfaces which are determined only by the geodesic distances between points on the surface independently of the particular way in which the surface is located in the ambient Euclidean space. This led to his *Theorema Egregium*, a fundamental result which explains why there cannot be an accurate planar map of the world.



Beautiful surfaces can be created by playing with soap bubbles, a family of minimal surfaces that will be studied in this class.

**Time and Place:**

June 1st – July 20th, 2010  
Monday, Thursday 6:30pm–10:00pm,  
Building 1S-217, College of Staten Island