

Bernhard Riemann



Born: 1826

Nationality: German

Died: 1866

Bernhard Riemann's ideas concerning geometry of space had a profound effect on the development of modern physics.

Mathematics

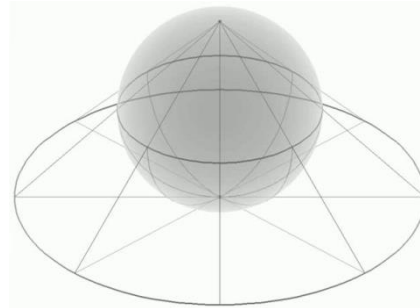
Riemann's Sphere

Imaginary number - $i = \sqrt{-1}$ It is described as imaginary because the square root of a negative number does not exist.

Complex number - A number involving a real and an imaginary number. $3 + 5i$

Complex Analysis – The study of complex numbers.

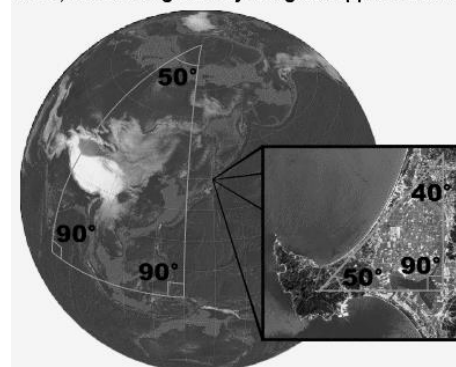
Riemann's sphere is a model used in complex analysis. It's a useful branch of mathematics and used in much of physics.



Elliptic Geometry

Riemann developed a type of non-Euclidean geometry, which has come to be known as elliptic geometry. In elliptic geometry there is no such thing as parallel lines, and the angles of a triangle do not sum to 180° .

The easiest way to think of elliptic geometry is to consider a triangle drawn on a sphere. The interior angles sum to more than 180° ; although, on a smaller scale, Euclidean geometry is a good approximation.



Death

It is said that Riemann caught a cold which worsened to become tuberculosis. Although he made several efforts in order to get better but were all in vain.