

## ABOUT VISUAL COMPLEX FUNCTIONS

Lidia Elena KOZMA

Let's take our first look at how these new geometries differ from Euclid's. In any triangle (T)

- 1). (Angle sum of T) =  $\Pi$
- 2). Angular excess  $E(T) = (\text{Angle sum of T}) - \Pi$

Euclidian geometry is thus characterized by the vanishing of  $E(T)$

In spherical geometry the angle sum is greater than  $\Pi$ :

$$E > 0 \text{ (Gauss)}$$

In hyperbolic geometry the angle sum is less than  $\Pi$ :

$$E < 0 \text{ (H. Lambert)}$$

Gauss never published his ideas on non-Euclidian geometry, and the two men who are usually credited for their independent discovery of hyperbolic geometry are Iános Bolyai (1829) and Nikolai Lobachevsky (1832). In 1868 Eugenio Beltrami discovered that hyperbolic geometry could be given a concrete interpretation, via "differential geometry" (the so-called) pseudosphere (figure 1)

