38. **Norbert Bogya, Lajos Szilassi and Zoltán Kovács**

Euclid, Bolyai and the exemplification in teaching of geometry

After a brief historical overview we show how we can illustrate the most basic statements of hyperbolic geometry with modern computing techniques. To do this, we use GeoGebra.

A lot of interactive experiments, including GeoGebra files, can be found on the Internet, and these programs try to illustrate the most basic statements and definitions of the hyperbolic geometry with the help of the Poincaré disk model.

The model presented by us differs from them, because it gives the users an own, precisely created toolbar, and a list of task to introduce, use and practise them. Across a didactically well-structured problem series we show the connection between the well-known Euclidean geometry, the less-known hyperbolic geometry and their common part, called absolute geometry. We concentrate on their objects, basic definitions and statements.