
Discovering laws of Nature with a compass and a ruler

Pierre Coulet*¹

¹InPhyNi – CNRS, Université Côte d’Azur – France

Résumé

I will describe some of the experimentations I performed in schools with pupils in the context of geometry and physics. From Euclids to Newton, physical phenomena (equilibria, light and motion) have been described in term of geometry only. The first part of the talk will be devoted to light, and particularly to the law of reflexion and the construction of Anaclastic mirrors and lenses. In the second part I will show how to solve the Kepler problem of planetary motion with the help of a compass and a ruler only. These are two examples among others which can be done in schools.

*Intervenant