Abstract

Today we find mathematics A huge number of theories and properties related to these conical shapes, but is it dangerous in our mind to ask what is the importance of studying the existence of such cuts? Or where do we find Cuttings in nature? What are the properties related to these shapes that have played a fundamental role in the various branches of mathematics, including applied mathematics?   To answer these questions we can search in the universe and nature and in everything that surrounds us about the places where cones and their cuts enter. There is no doubt that each of us happened to him to cut a conical shape using a sharp machine ... If that happens then we get one of the conical shapes (circle, parabola, ellipse, hyperbola)

This is what I presented in this research, as I presented a simple introduction to the topic and then a historical summary clarifying what researchers and scholars have done in this field throughout the ages, as well as systematic definitions of conical sections.

As for the first chapter, the mathematical laws of each of the conic sections are covered:

1_ The circle (the concept of the circle, the general equation of the circle, and the equation of the circle in the case of its center point of origin , a geometric figure that shows the circle, illustrative examples)

2_ Parabola

A_ (parabola concept, standard equation for parabola according to the constant sign a with illustration with engineering drawing, illustrative examples with drawing)

B_ the withdrawal of the axes of the pieces presented (the standard equations for the parabola whose head is point (h, k) and its axis parallels the years or antennas with the geometrical shape, as well as illustrative examples with the drawing)

3_ the Ellipse

A_ (I dealt with the concept of an ellipse, the standard equation for an ellipse centered with the origin and its two points belonging to either the x-axis or y-axis with the illustration in the geometrical form, and illustrative examples with a drawing)

B_ the withdrawal of ellipse axes has dealt (the standard equation for the ellipse headed by point (h, k) and its largest axis is Yuzai, either the axis of the sines or the antennas with the geometrical figure, illustrative examples with the drawing)

4_ Hyperbola

A_ (The concept of hyperboloid, the standard equation for a segment whose origin is centered and whose points belong to either the x-axis or the y-axis with the geometry illustration, illustrative examples with drawing)

B_ the withdrawal of the hyperboloid axes (the standard equation for the hyperboloid with a point head (h, k) and its true axis is equivalent to either the x-axis or the y-axis with the geometry illustration, and also examples are added with the drawing)
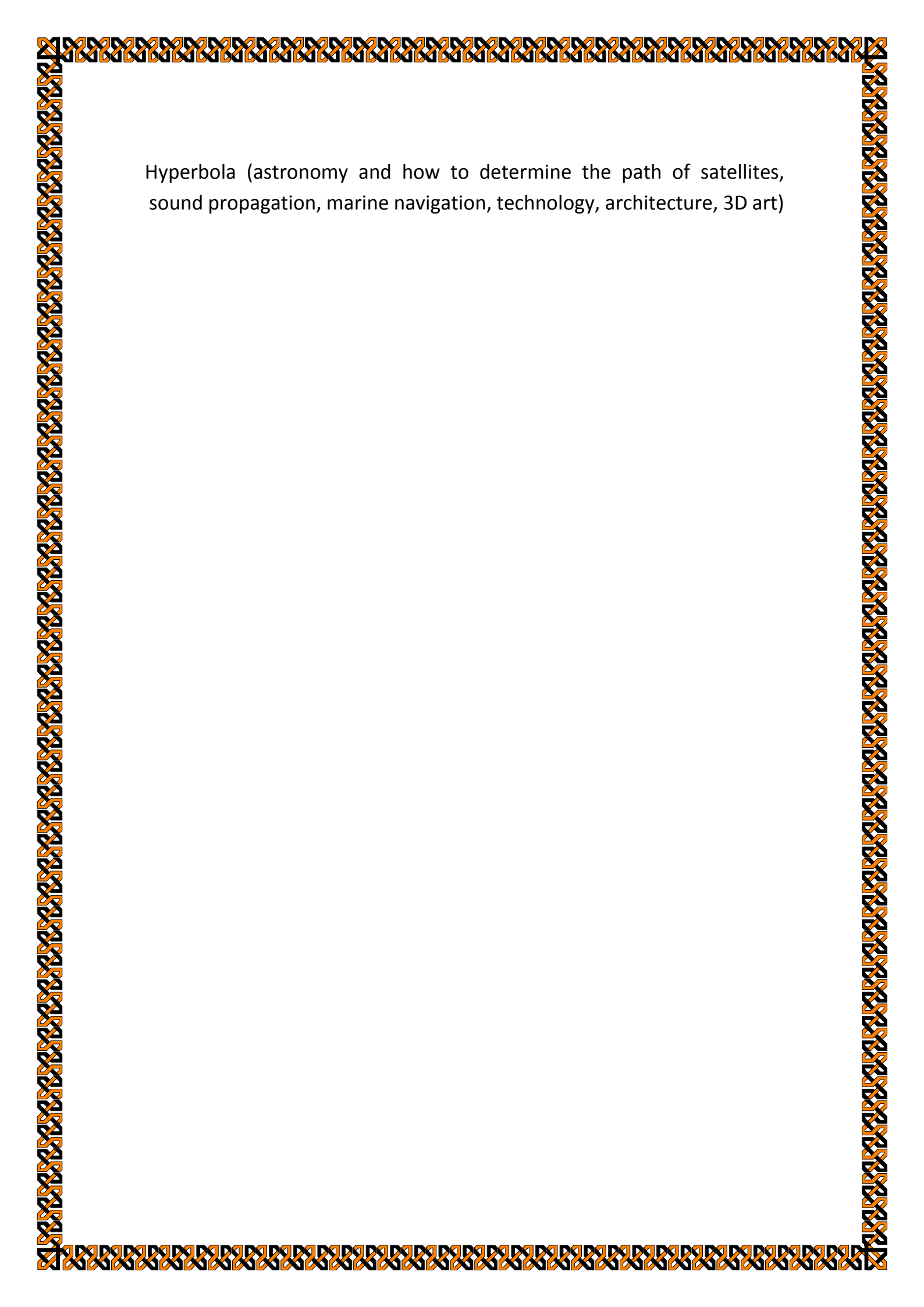
The second chapter dealt with some practical applications on conical pieces, and each of the four pieces has its own applications that distinguish it.

For example

Circle is in the field of (culture and art, architecture, technology and science, in nature, and in media and symbols)

Parabola (architecture and technology, light diffusion, nature and physics)

Ellipse in (designs, astronomy and science, light reflection, and in mechanics)

Hyperbola (astronomy and how to determine the path of satellites, sound propagation, marine navigation, technology, architecture, 3D art)