Dini surface

1 Abstract

In geometry, Dini's surface is a surface with constant negative curvature that can be created by twisting a pseudosphere. It is named after Ulisse Dini(1845 – 1918, Italia).

2 Definition

It is described by the following parametric equations:

$$x = a \cos u \sin v$$
$$y = a \sin u \sin v$$
$$z = a \left(\cos v + \ln \tan \frac{v}{2} \right) + bu$$

References

[1] MathWorld bt Wolfram,
http://mathworld.wolfram.com/DinisSurface.html