On the Axially Symmetric Willmore Surfaces

Vassil Vassilev

Institute of Mechanics, Bulgarian Academy of Sciences, Bulgaria
vasilvas@imbm.bas.bg

ABSTRACT

In this talk, we discuss five different types of differential equations, which describe axially symmetric Willmore surfaces. All of them are determined as the Euler-Lagrange equations of the Willmore energy expressed in terms of different independent and dependent variables. Several types of exact analytic solutions will be presented.