



## **MATRIX SOLUTIONS IN MATHEMATICAL MODELING**

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### **Abstract**

The paper discusses the common case where matrix solutions are defined as vectors in many-dimensional vector space. During the time when angular parameter varies the vector accomplishes a rotation in the space. This property is widely used for description of rotations as circular, helical, and toroidal motions – the form-building motions for all elementary particles and for superstrings. Rotational properties of matrix solutions are also used for construction various mathematical models in many-dimensional spaces both in micro and macro world

**Keywords and phrases:** anti-commuting matrices, many-dimensional space, matrix solution, nonlinear wave equation, particle collision, toroidal form, torsion.

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