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## **DEVELOPMENT OF THEORETICAL BASES BIQUADRATIC TRANSFORMATIONS OF THE PLANE**

The main result of this paper is to develop the theoretical foundations of modeling biquadratic transformations of the plane. First time the laws of designed biquadratic transformations of the plane was worked out.

The spatial mapping maps the two surfaces of the second order, established new laws get four-four-correspondences between two planes and the misalignment of the theoretical modeling of canonical transformations biquadratic plane.

As a result of consistent implementation of the above apparatus at A constructive plane correspond to the four points  $P_1 A_1', A_2', A_3', A_4' P_2$  plane, then there shall be four - a four-match between the misalignment between the planes  $P_1$  and  $P_2$ . Similarly, the point of  $A_1', A_2', A_3', A_4' P_2$  correspond to the plane of the point A plane  $P_1$ , that is set back four - a four-match between the misalignment between the planes  $P_1$  and  $P_2$ . Thus, we consider (4-4)-digit conversion between the combined planes  $P_1$  and  $P_2$ , which is called a biquadratic transformation of the plane.

In the statistical modeling of the first subgroup biquadratic transformations of the plane, described in the spatial design scheme considering the case where a combination of binary mapped surfaces of the second order is not ruled surface of order 2, such as a sphere and two-sheeted hyperboloid. To simulate the second subgroup biquadratic transformations of the plane we consider the case when the binary combination of the displayed second-order surfaces is ruled surfaces of order 2, such as conical and cylindrical surfaces of revolution. A third sub-model for biquadratic transformations of the plane, consider the case where a combination of binary mapped surfaces of the second order is not ruled surface of order 2, such as a sphere and two-sheeted hyperboloid.

Developed a method for biquadratic transformations of the plane, porazhdyaemye binary mapping of the two surfaces of the second order in the planes of the combined twelve kinds of canonical transformations biquadratic plane. As well as the algorithm definitions of mathematical models of canonical transformations biquadratic plane.

Thus, this paper is devoted to the development of the theory of four - correspondences between the misalignment of the planes and the development of the theory of biquadratic transform