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«Algebraic and geometric methods  
of analysis»

Book of abstracts



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## LIST OF TOPICS

- Algebraic methods in geometry
- Differential geometry in the large
- Geometry and topology of differentiable manifolds
- General and algebraic topology
- Dynamical systems and their applications
- Geometric problems in mathematical analysis
- Geometric and topological methods in natural sciences
- History and methodology of teaching in mathematics

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НТБ ОНАФТ

## The similarity invariants of integral B-splines

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Let a transformation group  $G$  be given. and the algebra of  $G$ -invariant polynomials for  $m$  vector variables  $x^{(1)}, x^{(2)}, \dots, x^{(m)}$  in 3-dimensional Euclidean space  $R^3$  over the field  $R$  is denoted by  $R[x^{(1)}, x^{(2)}, \dots, x^{(m)}]^G$ . Then equivalence conditions of given  $m$ - vector variables in terms of the elements of the generator system of the field of  $G$ -invariant rational functions  $R(x^{(1)}, x^{(2)}, \dots, x^{(m)})^G$ . All of them in this Study in 3-dimensional Euclidean space  $R^3$  the similarity transformations' group  $S(3)$  and its main subgroup  $LS(3)$  is considered as transformation group  $G$ .

Later integral B-spline curves and surfaces considered as very measurable examples are given. Because this curves and surfaces have a very important property which is invariance under affine transformations. So the similarity invariants of integral B- Splines are examined.

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