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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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ФІТБ ОНАФТ

Some many-dimensional extremal geometric problems

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The talk deals with many-dimensional analogs of some classical two-dimensional and three-dimensional geometric problems on an extremum. The asymptotic behavior of parameters of extremal geometric objects with increasing dimension of the space is studied.

It is shown that in some extremal problems (such as in the problem of a cylinder of fixed volume with a minimum total surface area and the problem of the shape of a right circular cone with a maximum volume of an inscribed ball in it) these parameters do not depend on the dimension of the space.

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