

International
Scientific Conference



Algebraic
and Geometric
Methods
of Analysis

27-30 May 2024
Odesa, Ukraine

The purpose of this conference is to bring together researchers in geometry, topology, algebra, analysis and dynamical systems and to provide for them a forum to present their recent work to colleagues from different nationalities. This way we aim to stimulate discussion about the latest findings in geometrical and topological methods in analysis and to increase international collaboration.

The conference continues the traditional annual conference «Geometry in Odesa» holding from 2004, and hosted by Odesa National University of Technology (Odesa National Academy of Food Technologies till 2021). From 2017 the conference was renamed to «Algebraic and geometric methods of analysis» (AGMA).

The Conference languages: Ukrainian and English.

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 and topological methods in natural sciences
- Geometric problems in mathematical analysis

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Some properties of affine ruled submanifolds

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We consider an affine ruled submanifolds of arbitrary dimension and codimension in the classical sense, that is, a ruled submanifolds over a curve.

Using the equiaffine theory of curves in an arbitrary affine space [1] we choose the most convenient parameterization and transversal distribution of the affine immersion of a ruled submanifold in general case, i. e., of arbitrary dimension and codimension.

All affine characteristics (induced connection, transversal connection, affine fundamental forms, Weingarten operators, curvature tensor) of such an affine immersion are found depending on the characteristics of the base curve and rectilinear generators.

We find the conditions for a base curve and directions of rectilinear generators so that the induced connection is flat. These conditions coincide with the already known properties of affine immersions with flat connection ([2]-[6]). Also we find the conditions for a base curve and directions of rectilinear generators so that the chosen transversal distribution is equiaffine.

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