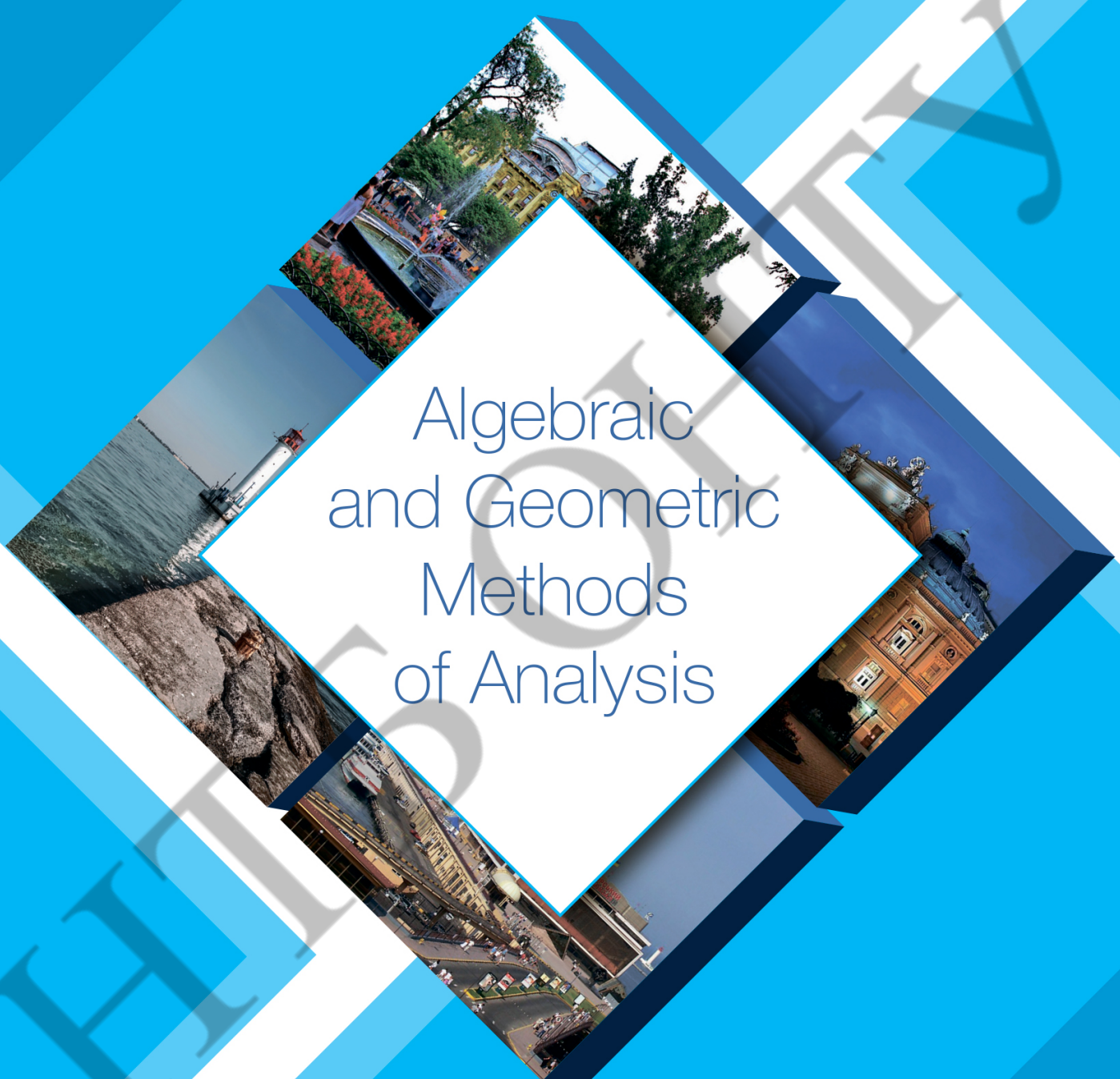


International
Scientific Conference



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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Disjoint dynamical properties of wedge operators

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Let H be a separable Hilbert space and $B_0(H)$ be the C^* -algebra of compact operators on H . Given an invertible bounded operator W and a unitary operator U on H , we let $T_{U,W}$ be the operator on $B_0(H)$ given by $T_{U,W}(F) = WFU$ for all $F \in B_0(H)$. Such operators are called wedge operators. In this talk, we characterize disjoint hypercyclic finite sequences of wedge operators. We provide also sufficient conditions for a finite sequence of the dual wedge operators to be disjoint topologically transitive. Finally, we give concrete examples and applications. The talk will be based on [1].

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On semi-symmetric (α, β, γ) -inverse quasigroup

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Quasigroups and loops are generalizations of groups (see [2, 9, 10]).

Definition 1. Let (Q, \cdot) be a system of non-empty set Q and a binary operation (\cdot) . (Q, \cdot) will be called a quasigroup if for $a, b \in Q$, the equations $a \cdot x = b$ and $y \cdot a = b$ have unique solutions $(x, y) \in Q \times Q$.

Definition 2. A quasigroup (Q, \cdot) , in which there is a unique element $\mu \in Q$, such that $x \cdot \mu = x = \mu \cdot x \quad \forall x \in Q$, is called a loop. The element μ is called the identity element in Q .

In associative algebraic systems, the notion of an inverse element or property holds significance only when the system possesses a neutral element, as seen in groups, for instance. Nevertheless, in quasigroups, the inverse property can be meaningfully established even when there is no neutral element present.

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