

International
Online Conference



**Algebraic
and Geometric
Methods of Analysis**

dedicate to the memory
of Yuriy Trokhymchuk
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LIST OF TOPICS

- Topological methods in analysis
- Geometric problems of complex and mathematical analysis
- Algebraic methods in geometry
- Differential geometry in the whole
- Geometry and topology of differentiable manifolds
- General and algebraic topology
- Geometric and topological methods in natural sciences

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Some equivariant properties of Milnor's construction

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In 1953 John Milnor, for a topological group G , introduced the notion of an infinite join $E_G = G * G * \dots$. This space possesses a natural action of the group G under which it becomes a universal principal G -fibration. The orbit space $B_G = E_G/G$ is well known as a classifying space. In this talk I will present a more transparent approach to constructing of E_G that will allow us to show that the natural action $G \curvearrowright E_G$ is proper in the sense of R. Palais whenever G is a locally compact group. As a result we obtain some new equivariant properties of this classic space. Similar research is carried out for the complete infinite join \tilde{E}_G (which is the completion of E_G with respect to a suitable metric) introduced in 1992 by T. Banakh.

Зміст

E. Afanas'eva <i>Finitely bi-Lipschitz homeomorphisms between Finsler manifolds</i>	3
Aliyev Yagub <i>About longest and shortest chords passing through a fixed point</i>	5
S. Antonyan <i>Some equivariant properties of Milnor's construction</i>	6
K. Antoshyna, S. Kozerenko <i>Commuting sets for topological set operators</i>	7
B. Apanasov <i>Asymptotic analysis of quasi-regular mappings in space</i>	8
M. J. Atteya <i>Generalized (σ, τ)-derivations on associative rings satisfying certain identities</i>	10
V. Balan <i>The Tucker HO-SVD and the anisotropy of Finslerian geometric models</i>	11
V. Balashchenko, D. Vylegzhanin <i>Invariant structures on homogeneous Φ-spaces and Lie groups</i>	13
T. Banakh <i>Every 2-dimensional Banach space has the Mazur-Ulam property</i>	15
A. Bandura, V. Baksa, O. Skaskiv <i>A connection between L-index of vector-valued entire function and L-index of each its component</i>	16
B. Baratov, Yu. Eshkabilov <i>Separable cubic stochastic operators</i>	18
V. Bilet, O. Dovgoshey <i>Asymptotically equivalent subspaces of metric spaces</i>	20
E. Bonacci <i>Isomorphic issues about the CTCs in Quantum Physics</i>	22
P. Petrenko, A. Andreev <i>Geometrical Langlands Ramifications and Differential Operators Classification by Verma Module Extensions</i>	23
Y. Cherevko, V. Berezovski, J. Mikeš, Y. Fedchenko <i>Conharmonic Transformations of Locally Conformal Kähler Manifolds</i>	24
V. Chernov <i>Applications of Linking to the Study of Causality</i>	26
A. Bakhtin, I. Denega <i>Problem on extremal decomposition of the complex plane</i>	27
A. Dikarev, A. S. Galaev <i>Parallel spinors on Lorentzian Weyl spaces</i>	29
Yu. A. Drozd <i>Matrix problems, triangulated categories and stable homotopy types</i>	30
V. S. Dryuma <i>On the properties smooth manifolds defined by intersections</i>	31
K. Eftekharinasab <i>Some applications of transversality for infinite dimensional manifolds</i>	33
S. Favorov <i>Uniqueness theorems for almost periodic objects</i>	34
V. Fedorchuk, V. Fedorchuk <i>On symmetry reduction and some classes of invariant solutions of the $(1 + 3)$-dimensional homogeneous Monge-Ampère equation</i>	35
B. Feshchenko <i>Deformations of circle-valued Morse functions on 2-torus</i>	37