THE CONFERENCE «CONTEMPORARY PROBLEMS OF PURE AND APPLIED MATHEMATICS»
DEDICATED TO THE CENTENARY OF THE BIRTH OF A. D. TAIMANOVA

T.SH. KALMENOVA, B.S. BAIZHANOVA

ABSTRACT. We present a short scientific report on the conference «Contemporary problems of pure and applied mathematics» dedicated to the centenary of the birth of A. D. Taimanov which was organized at Institute of Mathematics and Mathematical Modeling (Almaty, Kazakhstan, August 22–25, 2017).

The conference «Contemporary Problems of Pure and Applied Mathematics» was organized at Institute of Mathematics and Mathematical Modeling of Science Committee of Ministry of Education and Science of the Republic of Kazakhstan in Almaty from August 22 to August 25, 2017. The chair of the program committee was T.Sh. Kalmenov and the chair of the organizing committee and a member of the program committee was B.S. Baizhanov.

The conference was dedicated to the centenary of the birth of Asan Dabsovich Taimanov (25.10.1917–01.02.1990), an outstanding mathematician who worked in set theory, general topology and mathematical logics, member of the Academy of Sciences of Kazakh SSR.

The evening session on August 23 was organized jointly with the Association of Alumni of Novosibirsk State University in which A.D. Taimanov was the first chair of geometry and topology.

The program of the conference consisted of 19 forty-minutes plenary talks and of 64 twenty-minutes talks in the following sections:
— Algebra, mathematical logic and geometry;
— Differential equations and function theory;
— Mathematical modelling, computing and information technologies.

More than 40 experts in algebra, mathematical logic, geometry, differential equations and mathematical modelling participated in the conference. The conference program consisted of plenary talks and short talks. The talks were made by well-known experts from Novosibirsk, Almaty, Astana, Karaganda and also by mathematicians from Canada and Kyrgyzstan. More than 35 young scientists, graduate and undergraduate students participated in the conference. Most of them gave short talks.

The conference was supported by the Committee of Science of MES RK (Grant № 5125/GF4).

**Program (Plenary talks)**

**August 22**

09:50–10:30 Yu. L. Ershov (*Sobolev Institute of Mathematics, Novosibirsk*)
Injective and essentially complete topological space.

10:30–11:10 I.A. Taimanov (*Sobolev Institute of Mathematics, Novosibirsk*)
Theory of intersections and rings of cohomology of Riemann varieties with special groups of holonomies.

11:40–12:10 A.S. Dzhumadildayev (*Institute of Mathematics and Mathematical Modeling, Almaty*)
Statistics on permutations.

12:10–12:50 B.S. Baizhanov (*Institute of Mathematics and Mathematical Modeling, Almaty*)
Conservative extensions of models of complete dependent theories.

**August 23**

14:30–15:10 T.S. Kalmenov (*Institute of Mathematics and Mathematical Modeling, Almaty*)
The boundary condition for classical potentials

15:10–15:50 S.A. Badayev (*Al Farabi Kazakh National University, Almaty*)
Positive equivalences.

16:10-16:50 N.S. Dairbekov (*Kazakh-British Technical University, Almaty*)
Integral geometry of tensor fields.

16:50-17:30 B.S. Baizhanov, M.M. Erimbetov, B.Sh. Kulpeshov (*Institute of Mathematics and Mathematical Modeling, Almaty*)
On the scientific and scientific-pedagogical activity of member of the Academy of Sciences of Kazakh SSR Asan Dabsovich Taimanov.

17:30–18:10 V.D. Shiltsov (*Fermi National Accelerator Laboratory, Chicago, USA*)
About the Association of Alumni of Novosibirsk State University.
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August 24
09:00–09:40 S.V. Sudoplatov (Sobolev Institute of Mathematics, Novosibirsk)
Derivative Structures in Model Theory and Group Theory.
09:40–10:20 M. T. Dzhenaliev (Institute of Mathematics and Mathematical Modeling, Almaty)
On one singular Volterra integral equation of the second kind.
10:20–11:00 Y. Vasiliev (Memorial University of Newfoundland, Grenfell Campus, Canada)
Expansions of geometric structures by dense/condense subsets.
11:20–12:00 M.A. Sadybekov (Institute of Mathematics and Mathematical Modelling)
Periodic type nonlocal boundary value problems for the Laplace operator in the ball.
12:00–12:40 D.O. Revin (Sobolev Institute of Mathematics, Novosibirsk)
On locally finite groups of bounded c-dimension and the Borovik-Khukhro conjecture.

August 25
09:00–09:40 V.V. Verbovskiy (Suleiman Dimerel University, Almaty)
Relative stability.
09:40–10:20 D. Suragan (Institute of Mathematics and Mathematical Modeling, Almaty)
Potential theory on stratified Lie groups.
10:20–11:00 D.B. Bazarkhanov (Institute of Mathematics and Mathematical Modeling, Almaty)
Sparse approximations in dictionaries.
11:20–12:00 A. M. Nurakunov (Institute of Mathematics, Bishkek, Kyrgyzstan)
Ultraproducts preserve finite subdirect reducibility.
12:00–12:40 M.G. Peretiatkin (Institute of Mathematics and Mathematical Modeling, Almaty)
The fundamental importance of the finitary and infinitary semantic layer and the characterization of the expressive power of first-order logic.

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