

## **SESSIONS OF THE SEMINAR “ALGEBRA i LOGIKA”**

Extended Sessions of the Seminar within the Framework  
of the Conference “Mal’tsev Readings”  
(November 20-23, 2017)

### **2021st session. November 22, 2017**

#### **Ring Theory**

- A. A. Arutyunov (Moscow), Derivations in group algebras.  
A. A. Krylov (Moscow) and S. V. Pchelintsev (Moscow), Simple finite-dimensional algebras and isotopes.  
A. T. Gainov, Ternary composition algebras.  
S. V. Pchelintsev (Moscow), Prime algebras connected with monsters.  
S. V. Pchelintsev (Moscow) and O. V. Shashkov (Moscow), Simple finite-dimensional right-alternative unital superalgebras over an algebra of matrices of order 2.

### **2022nd session. November 22, 2017**

#### **Algebraic and Logical Methods in Information Technologies**

- D. E. Pal’chunov, Model-theoretic methods for generating correspondence rules between concepts.  
A. I. Kapustina, Developing methods for generating ontological knowledge based on preferences of mobile communication users.  
I. A. Korsun and D. E. Pal’chunov, Methods of derivation and formal representation of ontological knowledge in natural language texts.  
A. A. Fink, Developing automated methods for generating patterns of official documents.  
N. S. Mameev, Developing methods of automated verification for internal and external consistency of the basic educational program in baccalaureate.  
E. D. Makhina, Automated recognition of speech acts in natural language texts.

A. V. Galatenko (Moscow), A. E. Pankratiev (Moscow), and N. A. Piven' (Moscow), Polynomial completeness of quasigroups specified by proper families of Boolean functions.

**2023d session. November 22, 2017**

**Nonclassical Logics**

V. V. Rybakov (Krasnoyarsk), Temporal many-valued logic with lost worlds in the past.

S. I. Bashmakov (Krasnoyarsk), Projective unification for a linear nontransitive temporal logic with universal modal operator.

A. D. Yashin (Moscow) and A. G. Makarov (Moscow), Some extensions of Dummett's logic.

A. K. Koshcheeva (Izhevsk) and E. V. Voronchikhina (Izhevsk), A lower bound on the number of Novikov complete extensions of the Gabbay–De-Jong logic in a language with extra constant.

L. L. Maksimova and V. F. Yun, Recognizing properties of calculi by inference rules.

K. A. Kaushan, Hybrid logics with strong negation.

A. S. Gerasimov (St. Petersburg), Comparing some hypersequential calculi for the infinite-valued first-order Lukasiewicz logic.

E. E. Vityaev and S. P. Odintsov, The consistency problem for probabilistic inference.

**2024th session. November 22, 2017**

**Model Theory and Universal Algebra**

L. V. Ryabets (Irkutsk), Elements of the lattice of  $E$ -closed classes of hyperfunctions of rank 2.

E. I. Bunina (Moscow) and G. A. Kaleeva (Moscow), Universal equivalence of linear groups.

M. S. Sheremet, A two-element partial groupoid without a finite basis of identities.

M. S. Sheremet, Congruence-characterization of weak varieties of partial algebras.

A. A. Vikent'ev, Rich types in many-valued and many-sorted systems and collective clusterizations of many-valued statements in logical calculi for knowledge bases.

A. N. Shevlyakov (Omsk), Equationally Noetherian varieties of semigroups.

I. D. Kudyk (Omsk), Solving a system of equations over bipartite partial orders.

D. E. Pal'chunov and A. V. Trofimov, Countably saturated superatomic Boolean algebras with distinguished dense subalgebra of finite width.

A. G. Pinus, Lattices of bounded based subvarieties of discriminator varieties.

**2025th session. November 23, 2017**

**PLENARY MEETING**

A. G. Melnikov (Auckland, New Zealand), Computable categoricity, index sets, and classification of structures.

A. G. Pinus, Fragments of functional clones as a method of investigation of the latter.

D. O. Revin, Submaximal  $X$ -subgroups as a way toward studying maximal  $X$ -subgroups.

A. V. Mantsivoda (Irkutsk), Locally simple models and real life.

**2026th session. November 23, 2017**

**Ring Theory**

B. K. Zhakhaev (Kaskelen, Kazakhstan), Representations of symmetric groups on free anticommutative  $n$ -ary algebras.

S. V. Vostokov (St. Petersburg) and I. I. Nekrasov (St. Petersburg), Formal moduli in constructive class field theory.

V. N. Zhelyabin and A. S. Panasenko, Herstein's construction for almost finite-dimensional superalgebras.

**2027th session. November 23, 2017**

**Model Theory and Universal Algebra**

I. K. Sharankhaev (Ulan-Ude), Repetition-free functions of the algebra of logic in pre-elementary bases.

S. A. Badmaev (Ulan-Ude) and I. K. Sharankhaev (Ulan-Ude), A completeness criterion for sets of multifunctions.