

**The project title.** Hybrids of fragments and their small models.

**Project goal.** A study of the most important syntactic and semantic properties of hybrids of the above-mentioned Jonsson theories and their countable models obtained with respect to the closure of atomic and simple sets in the class of existentially closed models of a given hybrid.

**Project tasks.**

1. Consider the semantic and syntactic similarity of fixed hybrids and describe the properties of the definable subsets of the closure that define the small models under consideration.

2. Consider the properties of the lattices of formulas that arise in fragments of definable subsets that are related to the corresponding small models of hybrids of these fragments.

3. Consider the relationship between the properties of the closure operator and the definable subsets whose fragments define the hybrid and its small models.

4. Describe the properties of small models of a hybrid of fragments of theoretical sets that are related through a certain rheostat.

5. Describe the model-theoretic properties of theoretical sets of hybrids of fragments related to small models.

6. Study the properties of small models in the class of existentially closed models of a convex perfect Jonsson theory.

7. Consider the properties and relationship of the external and internal worlds of small models of a fixed cosematicity class of a certain Jonsson spectrum.

**Composition of the research group**

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