Categories and functors of universal algebraic geometry. Automorphic equivalence of algebras.

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Universal algebraic geometry allows considering of algebraic geometry of every universal algebra. When two algebras have same algebraic geometry? We must consider the categories of algebraic closed sets of these algebras to answer this question. The complete coincidence of these categories gives us a concept of the geometric equivalence of algebras. Some type of isomorphisms of these categories gives us a concept of the automorphic equivalence of algebras. This concept has been considered since [1]. We will give by language of category theory one more elegant definition of this concept and recall some theorems related to this concept.

References

[1] B. Plotkin, Algebras with the same algebraic geometry. *Proceedings of the Steklov Institute of Mathematics*, MIAN, Vol. 242 (2003)