

THE THEORY OF DEFINABILITY

Definability theory can be considered as an important part of all mathematics along with proof theory, model theory, and computation theory. This was constantly emphasized by Alfred Tarski, who owns remarkable results in this theory, the main question of which is: is it possible to define some concept or relation, through other concepts, relations. The report will give a general overview of the results in definability theory since the XIX century, including the Svenonius Theorem (completeness theorem for definability), the latest results of the author, his students and colleagues are presented, and a wide spectrum of open problems and possible solutions are proposed. The presence of this spectrum is a characteristic feature of the current state of definability theory. The report can also provide a general overview of the research on mathematical logic, theory of algorithms and Computer Science going on at Moscow University, Moscow, and Russia.