

Solving Symbolic Equations in τ Logic

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The last thirty years of the 20th century the efforts were underway to elaborate the methods for automatic theorem proving. A number of interesting results has been achieved. In fact, the results achieved in this fields are based on the first order theory. In this theory τ operator of Bourbaki never occurs. Kh. Rukhaia has constructed τ -logic, the language of which includes τ operator as one of its main symbols. In this theory the existential and generality quantifiers are defined by the rational system of the defining rules. By this very system are achieved the deductive extension and development of the language of τ -theory and therefore it has sufficient expressive power.

In this talk we construct an algorithm which takes symbolic equations with τ operator and returns its solution. We prove that the algorithm is sound, complete and terminated.