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On the theory of Nonclassical Equations

The Nonclassical Equations of Partial Differential from the ancient times attract the attention of famous mathematicians. Attempt of production and study boundary value problems for modal equations of composite type in bounded domains were undertaken particularly by a French mathematician J. Adamar.

Evolution of the theory of nonclassical (composite) systems of equations had begun since 60-th years of 20-th century by the works of Dzhuraev A. where the boundary problems for systems of first order equations of composite type of two independent variables for the first time was posed and researched. Further researches on boundary problems for the such kind of systems were found on the works of L. Wolfersdorf, C. Vidic and many others. However in Multidimensional cases such systems are learned not enough about, not considering the definite equations systems in half-space, in cylindric domain [2,3] and in separate systems of layer type domains as well [3].

It is because of, firstly in researches of multidimensional nonclassical systems there are new moments emerge, caused not only by technical dificulties, secondly there are not general methods of their research. That's why nonclassical systems of equations of more independent variables are much paid interest.

In this report a method for broad class of multidimensional analogs of of A. Dzhuraev and nonclassical analogs of A. V. Bisadze system are pretended along with a method for finding general solution on multidimensional nonclassical systems, which proves that the solution exists and gives a chance for finding constructive formulas in calculating the problems.

Bibliography

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