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## STUDY OF ONE CLASS PROBLEMS MOVING SOURCES IN SYSTEMS OF OPTIMAL CONTROL BY WITH THE DISTRIBUTED PARAMETERS

## Abstract

For the solution of a problems of optimal control of moving sources which condition is described by totality of parabolic type equation and systems of the ordinary differential equations, existence and uniqueness theorems are proved, sufficient conditions of differentiability of a target functional and an expression for its gradient are obtained, necessary conditions of optimality in the form of integral maximum principles are established.