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ON SOME CLASSES OF COEFFICIENT INVERSE PROBLEMS FOR PARABOLIC SYSTEMS OF EQUATIONS

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We examine the question on solvability in the Sobolev spaces of coefficient inverse problems for parabolic systems of equations with the overdetermination conditions on a collection of surfaces. Under certain conditions on the geometry of the domain and the boundary operators, the local solvability of the problem is proven. It is demonstrated that the conditions on the boundary operators are sharp and that, in some cases, the problem is not unconditionally solvable.

Key words and phrases: inverse problem, parabolic system, boundary value problem, overdetermination condition.

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