ISAAC Conference, 23-27 April, 2007, Tbilisi, Georgia Dedicated to the Centenary of I.Vekua

## NONLOCAL BOUNDARY VALUE PROBLEMS FOR MIXED TYPE EQUATION WITH STRONG PARABOLIC DEGENERACY IN THE DOMAIN

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In an rectangular domain some nonlocal problems are considered. According by the problem the values of unknown solution on a part of boundary and on given continuous set domain's interior points are connected. This problems are posed for second order mixed type equation, wich in one subdomain is elliptic and in another subdomain – hyperbolic. On the common part of boundaries of this subdomains of the equation is parabolic degenerated. This curve envilops the families of characteristics and belong to both of them as the singular curve. Therefore the weighted connection conditions for solution and it's normal derivative everywhere along the singular curve are given.

There are considered four different versions of nonlocal conditions, when the solution along some interior rectilinear interval with it's values on some side of the rectangle are connected.

The sufficient conditions for existence and uniqueness of problems are obtained. This conditions are comparized with other conditions guaranteeing the solvability of wighted first boundary value problem.