

Gellerstedt equation with integral perturbation of Cauchy condition

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Abstract: For a degenerate hyperbolic equation of the first kind in the characteristic triangle, well-posedness of the problem with integral perturbation conditions of Cauchy problem on the degenerate line is proved.

Keywords: Gellerstedt operator.

References:

[1] Cannon J.R., The solution of the heat equation subject to the specification of energy, Quarterly of Applied Mathematics, vol. 21, No.3, pp. 155-160, 1963.