

On a semilinear boundary value problem for degenerate parabolic pseudodifferential equations

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Abstract: A study was conducted to investigate article a semilinear boundary value problem for a degenerate parabolic pseudodifferential equation. The main result generalized the famous theorem of Agranovich and Vishik and the existence of a solution was proved using the Rothe theorem on a fixed point. The Laplace transform was also defined to find a solution to the problem. A pseudodifferential operator was considered to investigate the semilinear boundary value problem and prove the Rothe theorem on a fixed point.

Index Keywords: Fixed points; Pseudo-differential operator; Pseudodifferential equations; Semilinear; Boundary value problems; Mathematical operators; Theorem proving; Laplace transforms

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