

ON THE CORRECT SOLVABILITY OF THE CAUCHY PROBLEM CONNECTED WITH SOME DISPERSIONAL AND DISSIPATIVE MODELS

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In the article some properties of mathematical models for dispersive and dissipative aerodynamical processes described by nonstationary 3-dimensional partial differential equations of high order is being studied. Particularly fundamental solutions of those equations are being constructed. Also studying properties of those fundamental solutions are being studied, proving correct solvability of the Cauchy problem for those equations and stating the semigroup property for solutions.