

On the investigation of nonlocal in time problems for hyperbolic and Schrodinger type equations

Gia Avalishvili

In this paper nonlocal in time problems for the abstract evolution equation of second order and Schrodinger type equations are studied and theorems on existence and uniqueness of their solutions are proved. Some applications of these theorems for hyperbolic and Schrodinger type partial differential equations and systems are considered, as are algebraic properties of certain expressions containing the dimensions of the spatial boundary and the times appearing in the nonlocal in time initial conditions.