

On correct solvability of some non-stationary problems in two-dimensional weighted Stepanov spaces

Svetlana Pisareva¹

¹Voronezh State University of Forestry and Technologies named after G F Morozov

May 5, 2020

Abstract

The article deals with the correct solvability of some differential equations in two-dimensional weighted Stepanov spaces. The solution is sought by methods of semigroup theory and related methods using fractional powers of operators. The results of the paper are important for the theory of differential equations in Stepanov's spaces. Also they are important and form a basis for computational methods for differential equations considered based on explicit integral representations for solutions. The results are obtained using ideas of S.G.Krein on fractional powers of operators in Banach spaces.

Hosted file

Pisareva SV.pdf available at <https://authorea.com/users/296542/articles/425513-on-correct-solvability-of-some-non-stationary-problems-in-two-dimensional-weighted-stepanov-spaces>