THE PROBLEM OF DETERMINING THE SPE ED OF SOUND AND MEMORY OF ANISOTROPIC MEDIUM

Askar Rahmonov[1], Umidjon Durdiev[2], and Zavqiddin Bozorov[3]

[1]Bukhara State University, Bukhara Branch of the Institute of Mathematics at the Academy of Sciences of the Republic of Uzbekistan, Bukhara, Uzbekistan
[2]Bukhara State University
[3]Bukhara Branch of the Institute of Mathematics at the Academy of Sciences of the Republic of Uzbekistan, Bukhara, Uzbekistan

March 30, 2022

Abstract

We consider the problems of simultaneously identifying two unknowns. The wave propagation velocity and the memory of the layered medium will be determined. For their determination, two observations are used for how the boundary of the domain fluctuates. Main results are stability estimates and uniqueness theorems for the problems under consideration.

Hosted file

Rahmonov_Durdiev_Bozorov.pdf available at https://authorea.com/users/385791/articles/561951-the-problem-of-determining-the-spe-ed-of-sound-and-memory-of-anisotropic-medium

Hosted file

Rahmonov_Durdiev_Bozorov.tex available at https://authorea.com/users/385791/articles/561951-the-problem-of-determining-the-spe-ed-of-sound-and-memory-of-anisotropic-medium