

**FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF
HIGHER EDUCATION
SAINT-PETERSBURG STATE UNIVERSITY**

REVIEW

of the academic supervisor on the graduate qualification work of the student

Trufanov Aleksandr Aleksandrovich

(surname, first name, patronymic)

Head of the graduate qualification work:

Professor Borisov Nikolay Valentinovich

(title, last name, first name, patronymic)

Topic of the graduate qualification work

“Multimedia technologies in the creation of the audio field”

Contents of the work

This paper explores the question of creating a spatial sound field based on a monaural discrete sound source. For this purpose, Trufanov A.A recorded a grand piano with one microphone close together to reduce the influence of the hall acoustics, then used processing to achieve a three-dimensional sound field that emulates the acoustics of the hall. He did this in two ways: discretely using reverbs and virtually using ambisonics technology. With this he proved that it is possible with the help of modern software to approach the natural acoustics of a concert hall.

Practical Significance.

Modern ambisonics technologies allow you to create surround sound not only from mono, but also from any multichannel formats by virtualization, which allows you to create content for surround media applications.

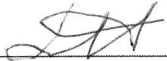
Disadvantages

These technologies cannot yet completely replace the sound of a good concert hall, but they obviously have the potential to be used in other areas.

Characteristics of the student's work on the thesis

During the performance of the graduation work Trufanov Aleksandr Aleksandrovich developed an approach in solving the tasks, has deeply analyzed and used modern technologies of digital audio processing.

Head of the GCR, Doctor of Physical and Mathematical Sciences, Professor
Borisov Nikolay Valentinovich
(title, last name, first name, patronymic)

Signature  _____
“ 22 ” _____ May _____ 2023 г.