

## Protocol No 12/ 20 April 2017

A report “ Mathematics and music. From Pythagoras to Bach and nowadays”was presented by Ass. prof. Georgi Dimkov, Ph. D. from the Institute of Mathematics and Informatics of Bulgarian Academy of Sciences. Speaker started with an outline that contained introduction to the connection between mathematics and music since ancient times. The research of Pythagoras on musical tones and half-tones was discussed. Further the building of systems of musical tones was explained for different kinds of musical instruments.

## Discussion

Numerous questions have been asked about the music career of Dr. Dimkov and about the construction of major and minor systems of musical tones for stringed musical instruments such as piano (Ass. Profs. Nina Pesheva and Ass. Prof. Maria Datcheva). Dr. Dimkov explained in detail the difficulties connected to setting of musical tones for the piano and the need of large training in order to hear and produce different kinds of musical tones that are close one to another. Prof. Kavardjиков asked Dr. Dimkov to tell several words on his project activity connected with the musical tones connected to Bulgarian church bells. Dr. Dimkov described the activities connected to collection of the “voices” of the church bells in Bulgaria and noted the existence of an archive of these musical tones. Finally Dr. Dimkov described the work on the acoustical studies of the Tracian tombs that is performed in collaboration with scientists from the Institute of Mechanics of Bulgarian Academy of Sciences.

The interest to the seminar was large. Numerous researchers from the Institute of Mechanics and other research organizations attended the seminar at Hall 200 of the Institute of Mechanics.

Head of the seminar: Prof. Nikolay K. Vitanov, Ph. D., D. Sc.