## Ministry of Science and Education Republic of Azerbaijan Institute of Mathematics and Mechanics

## Department "Applied Mathematics" Report for the 2023 year ABOUT SCIENTIFIC ACTIVITIES

The department employs 6 researchers and 1 senior laboratory assistant. Two of them are PhDs doctor and two are PhDs.

The department performs scientific work on the topic: "Modeling the movement of gas, liquid and gas-liquid mixture in the reservoir-well system" and "Deformation of inhomogeneous structural elements, stability and use of composite materials."

During the first 6 months, 5 theses, 7 articles were published.

## About scientific organizational activity:

During the reporting period head of the department, doctor of mechanical sciences E.M. Abbasov gave a speech on the topic "Determination of the force of resistance of a liquid to a body moving in it" at the all-institute seminar.

At the international conference "Modern Problems of Mathematics and Mechanics" dedicated to the 100th anniversary of the national leader Heydar Aliyev organized by the Institute of Mathematics and Mechanics, E.M. Abbasov spoke on the topic "Movement of a liquid-gas mixture in a vertical pipe".

A.H. Movsumova, a junior researcher of the department, performed on the topic " Free vibrations of inhomogeneous, weakened cylindrical panels in contact with a viscoelastic medium, reinforced by shafts" at the international conference "Modern Problems of Mathematics and Mechanics" dedicated to the 100th anniversary of the national leader Heydar Aliyev organized by the Institute of Mathematics and Mechanics.

Department head, doctor of mechanical sciences E.M. Abbasov is a member of the expert council on Mathematics and Mechanics at HAC. He directs the training of 2 Doctor of Philosophy, 1 Doctor of Science doctoral students. He teaches master classes of IMM of MSE and Baku State University majoring in fluid, gas and plasma mechanics.

The department's senior researcher Sh.A.Karimova works as a senior teacher (substitute) at Azerbaijan Technical University.

The work progress is normal, there are no delays.

## **Department head:**