

Ministry of Science and Education Republic of Azerbaijan
Institute of Mathematics and Mechanics
Department of Applied Mathematics for 2024.

scientific and scientific-organizational activities

semi-annual report

ABOUT SCIENTIFIC ACTIVITIES

The department employs 3 researchers. One of them is a Doctor of Science, the other is a Doctor of Philosophy.

REPORT

Scientific direction: Mechanics of liquid, gas and deformable solids.

Topic: “Modeling the movement of gas, liquid and gas-liquid mixture in the reservoir-well system”

About scientific activities: During the reporting period, 4 articles and 4 theses were published.

1. E. M. Abbasov and N. A. Agaeva Impact of sand production on the hydrodynamics of a liquid in a reservoir–pipeline system// “Journal of Engineering Physics and Thermophysics”, Vol. 97, No. 2, March, 2024 p. 361-374 (WoS, Scopus, Impact Factor 0.6, Q2)
2. E.M.Abbasov, T.S.Kengerli, N.R.Abdullayeva The influence of changes on the rheological properties of a gas-liquid mixture on the dynamics of its motion, taking into account the heat exchange process //”Transactions of A. Razmadze Mathematical Institute” Vol . 178 (2024), citation index 0.38, p. 1-9, WoS, Scopus,
3. E. M. Abbasov and N. R. Abdullaeva Dynamics of Gas Motion in Pipe with Permeable Wall //” Journal of Engineering Thermophysics”, 2024, Vol. 33, No. 2, c Pleiades Publishing, Ltd., ** ISSN 1810-2328 2024. p.1–20. (WoS, Scopus, Impact Factor 2.4, Q3)
4. B.A. Suleimanov, E.M. Abbasov Predicting of water breakthrough time into the well on pressure build-up curves //Applied and Computational Mathematics Volume 23, No. 2, WoS, Scopus, Impact Factor 3.898, Q1. p.219-227
5. E.M. Abbasov Hydrodynamics of the movement of an oil-water mixture in a pipe // International conference Modern Problems of Mathematics and Mechanics” dedicated to the memory of the brilliant Azerbaijani scientist and thinker of the XIII century Nasireddin Tusi. Baku, 03-06 April, 2024

6. E.M. Abbasov, S.E.Imamaliyev Simulation of the dynamics of fluid movement in a pipe taking into account mass transfer // International conference "Modern Problems of Mathematics and Mechanics" dedicated to the memory of the brilliant Azerbaijani scientist and thinker of the XIII century Nasireddin Tusi. Baku, 03-06 April, 2024
7. E.M. Abbasov, N.A.Aqaeva Process of instantly discharge of liquid under high pressure in a horizontal straight pipeline // International conference "Modern Problems of Mathematics and Mechanics" dedicated to the memory of the brilliant Azerbaijani scientist and thinker of the XIII century Nasireddin Tusi. Baku, 03-06 April, 2024
8. Sh.A.Kerimova Displacement's time of fluid from the annular space into the central channel // International conference "Modern Problems of Mathematics and Mechanics" dedicated to the memory of the brilliant Azerbaijani scientist and thinker of the XIII century Nasireddin Tusi. Baku, 03-06 April, 2024

About scientific and organizational activities:

Head of Department, Doctor of Mechanical Sciences E.M. Abbasov is a member of the expert council on mathematics and mechanics of the HAC. Supervises the training of 4 doctoral students in philosophy and 1 doctor of science. Teaches undergraduates at Baku State University in the field of fluid, gas and plasma mechanics.

Senior researcher of the department Sh.A. Karimova works as a senior lecturer (deputy) at the Azerbaijan Technical University.

Head of the department: Doctor of Science in Mechanics E.M. Abbasov