

## REPORT

### **on the periodical scientific publication of the Institute of Mathematics and Mechanics of the National Academy of Sciences of Azerbaijan “Transactions of Azerbaijan NAS, issue Mechanics” (series of physical-technical & mathematical sciences) for 1-st half of 2023**

During the reporting period, one issues of the Transactions of Azerbaijan National Academy of Sciences (issue Mechanics) (a series of physical, technical and mathematical sciences) was shaped and published.

The publication of the first issue 43 (7), 2023 was carried out in July 2023. The following articles are published in the Vol. 43, 7th issue of the Journal:

1. Dynamics of incompressible viscous fluid flow in an elastic tube of varying cross-section

by Ali B. Aliyev, Kamala R. Rahimova.

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.3>

2. Nonlinear feedback control of motion and power of moving sources during heating of the rod

by Vugar A. Hashimov

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.12>

3. Development of a method for solving the problem of waves propagation in an elastic medium under the action of cylindrical inclusion

by Shakir A. Mammadov, Polad M. Sadikov, Tural Sh. Mammadli

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.31>

4. Determination of the stress intensity factor during longitudinal displacement in a composite material reinforced with unidirectional fibers with linear cracks

by Rafail K. Mekhtiev, Alekber K. Mekhdiev

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.43>

5. Investigation of non-stationary processes of an elastic half-space with a built-in elastic cylinder

by Nazila B. Rassoulova, Tahmina M. Mahmudzade

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.53>

6. Free vibrations of a nonhomogeneous rod-cylindrical shell-fluid system

by Vusala B. Rzayeva

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.62>

7. Mixed-type variational principle for creep problems considering the aggressiveness of external fields

by Yusif M. Sevdimaliyev

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.70>

8. Boundary estimates of solutions mixed boundary problems for elliptic equations with VMO coefficients

by Konul G. Suleymanova

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.84>

9. Academician Azat Mirzajanzade – 95

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.90>

10. In memory of Professor Yuri Ustinov

DOI: <https://doi.org/10.30546/2706-7734.43.7.2023.92>