Alexander N. TIMOKHA (born 13.07.1962)

- *PhD (1988), Doctor of Sciences (Mathematical Physics, 1993)*
- ***Academician (full Member) of the National Academy of Sciences of Ukraine, 2021*** *(Corresponding Member, 2015)*
- *Head of Department ("Mathematical problems of mechanics and control theory") at the Institute of Mathematics of the National Academy of Sciences of Ukraine, 2017-*
- ***Director of the Institute of Mathematics of the National Academy of Sciences of Ukraine, 2021-***
- http://www.imath.kiev.ua/~tim,
- atimokha@gmail.com, tim@imath.kiev.ua, [institute.timokha@gmail.com, institute@imath.kiev.ua Director]
- ORCID: https://orcid.org/0000-0002-6750-4727

Employment Record:

- Institute of Mathematics of the National Academy of Sciences of Ukraine (Engineer, Junior Researcher, Researcher, Senior Researcher, and Leading Researcher) – 1984-2017,
- Centre of Excellence "Centre for Ships and Ocean Structures", Norwegian University of Science and Technology (Research Professor) – 2004-2012,
- Visiting Professor, University of Surrey, 2013-2018,
- Centre of Excellence "Autonomous Marine Operations and Structures", Norwegian University of Science and Technology (Research Professor) – 2012-2022,
- Department of Mathematics, Faculty of Engineering and Physical Sciences, University of Surrey, UK – 2013-2018,
- Institute of Mathematics of the National Academy of Sciences of Ukraine (Head of Department) – **2017-**,
- Institute of Mathematics of the National Academy of Sciences of Ukraine (Director) – **2021-**

Teaching:

- ❖ Kyiv Polytechnical University (Complete Calculus mathematics for BSc students) – 1984-93,
- ❖ Taras Shevchenko National University of Kyiv (Theoretical Mechanics and Mathematical Physics for MSc students) – 1995-99,
- ❖ Norwegian University of science and Technology (Marine Structures, Hydrodynamics for PhD students) – 2004-2008, 2015,
- ❖ Institute of Mathematics of the National Academy of Sciences of Ukraine (5 PhD courses, Applied Mathematics) – 2016-

Commercial Contracts:

- "HARTRON" – 1984-89,
- Design Office "YUZHNOYE" – 1985-91

Editor-in-Chief

"Український математичний журнал" (Q2/Q3)

Associate Editor:

- ✓ "Journal of Applied Mathematics" (2009 – 2017)
- ✓ "Mathematical Problems in Engineering" (Q3)
- ✓ "Ocean Systems Engineering" (Q2)
- ✓ "Nonlinear Oscillations" (Q3)
- ✓ "Journal of Applied and Numerical Analysis"

Guest Editor:

- ➢ "Mathematics" (Q1)

Expertize:

- ➢ European Commission for the Research Framework Programmes, CORDIS, EU
- ➢ Technology Foundation, STW, NOW, Ultrecht, the Netherland
- ➢ Danmarks Frie Forskingsfond, Danmark
- ➢ EPSRC (Engineering and Physical Sciences Research Council), UK
- ➢ Forskningsrådet, Norway
- ➢ National Research Foundation of Ukraine (NRFU)

Other activities:

- ✓ National committee in theoretical and applied mechanics, (2023-)
- ✓ Committee of the State prizes of Ukraine in science and technology, section of mathematical sciences, member, (2021-)
- ✓ Committee of the National Academy of Sciences of Ukraine for integration to the European research area (2020-)
- ✓ Garant of the PhD program in Applied Mathematics at the Institute of Mathematics of the National Academy of Sciences of Ukraine (2020-)
- ✓ Bureau of the Department of Mathematics of the National Academy of Sciences of Ukraine (2020-)
- ✓ Doctor Science Committee Д 28.206.02, Vice-Head (2020-)
- ✓ Head of Applied Mathematics in the Committee for evaluation of research institutions at the Ministry of Education and Science of Ukraine (2019-)

Awards/Prizes:

- named after V.Ostrogradsky (2020)
- the State prize of Ukraine in science and technology of Ukraine (2012)
- named after M.Krylov (2000)
- V.Petrishyn Award for the best work in nonlinear analysis (USA, 1994)
- The Medal with Award for the best young researchers of the National Academy of Sciences of Ukraine (1993)

Prestigious individual Grants:

- Alexander von Humboldt Fellow, Germany (2003-04)
- NATO Senior Scientist Award/Fellowship (1998-99)
- Presidential Early Career Scientist of Ukraine (1994, 1996)
- International Science Foundation, США (1992, 1996)

Prestigious Grants (PI/co-PI):

- NRFU (Ukraine), (2020-22), № 2020.02/089 [$ 400,000]
- DFG (Germany), (1997-2011), № 435 113/33/(0-4) [€ 500,000]
- INTAS (EU), (1994-1996), Grant No. 94-1234 [$ 20,000]
- National Space Agency of Ukraine (1995-97), [$2 000]
- Simons Foundation (USA) (2022-23), [$310 161]

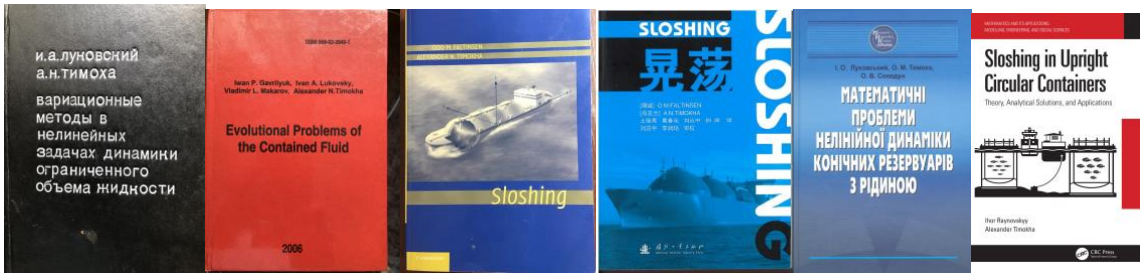
Visiting Professorships:

- FSU Jena (Germany) 2004-13
- Leipzig University (Germany), 1997-2003
- NTNU (Norway), 1999-2002
- TU Cottbus (Germany), 1998-99

Membership:

GAMM (Germany), AMS (USA), EUROMECH

The author of more than 200 papers and 6 books



Selected journal papers (2012-2023)

Quartile [Q1]:

1. Miliaiev A., Timokha A. (2023): Viscous damping of steady-state resonant sloshing in a clean rectangular tank. ***Journal of Fluid Mechanics***, **965**, R1, 1-11
2. Faltinsen, O.M., Timokha, A.N. (2021): Coupling between resonant sloshing and lateral motions of a two-dimansional rectangular tank. ***Journal of Fluid Mechanics***, **916**, A60, 1-41
3. Faltinsen, O.M., Lagodzinskyi, O., Timokha, A.N. (2020): Resonant three-dimensional nonlinear sloshing in a square base basin. Part 5. Three-dimensional non-parametric tank forcing. ***Journal of Fluid Mechanics***, 894, A10, 1-42
4. Faltinsen, O.M., Timokha, A.N. (2019): An inviscid analysis of the Prandtl azimuthal mass-transport during swirl-type sloshing. ***Journal of Fluid Mechanics***, 865, 884-903
5. Faltinsen, O.M., Timokha, A.N. (2017): Resonant three-dimensional nonlinear sloshing in a square-base basin. Part 4. Oblique forcing and linear viscous damping. ***Journal of Fluid Mechanics***, 822, 139-169
6. Faltinsen, O.M., Lukovsky, I.A., Timokha, A.N. (2016): Resonant sloshing in an upright annular tank. ***Journal of Fluid Mechanics***, 804, 608-645
7. Faltinsen, O.M., Timokha, A.N. (2016): Undamped eigenperiods of a sea-based gravity monotower. ***Applied Mathematical Modelling***, 40, 8217-8243
8. Faltinsen, O.M., Timokha, A.N. (2015): On damping of two-dimensional piston-mode sloshing in a rectangular moonpool under forced heave motions. ***Journal of Fluid Mechanics***, 772, R1
9. Gavrilyuk, I., Hermann, M., Trotsenko, V., Trotsenko, Yu., Timokha, A. (2014): Eigenoscillations of a thin-walled azimuthally closed, axially open shell of revolution. ***Journal of Engineering Mathematics***, 85, 83-97
10. Gavrilyuk, I., Hermann, M., Trotsenko, Yu., Timokha, A. (2013): Studying the coupled eigenoscillations of an axisymmetric tower-elevated tank system by the multimodal method. ***Journal of Fluids and Structures***, 42, 152-165
11. Faltinsen, O.M., Timokha, A.N. (2013): Multimodal analysis of weakly nonlinear sloshing in a spherical tank. ***Journal of Fluid Mechanics***, 719, 129-164
12. Faltinsen, O.M., Timokha, A.N. (2012): Analytically approximate natural sloshing modes for a spherical tank shape. ***Journal of Fluid Mechanics***, 703, 392-401
13. Faltinsen, O.M., Timokha, A.N. (2012): On sloshing modes in a circular tank. ***Journal of Fluid Mechanics***, 695, 467-477

Quartile [Q2]:

1. Raynovskyy, I.A., Timokha, A.N. (2018): Steady-state resonant sloshing in an upright cylindrical container performing a circular orbital motion. ***Mathematical Problems in Engineering***, Article ID 5487178, 1-8
2. Raynovskyy, I.A., Timokha, A.N. (2018): Damped steady-state resonant sloshing in a circular base container. ***Fluid Dynamics Research***, 50, Article ID 045502, 1-27
3. Timokha, A.N. (2016): Analytically approximate natural sloshing modes and frequencies for an upright circular container with poles. ***Journal of Engineering Mathematics***, 101, Issue 1, 47-54
4. Faltinsen, O.M., Timokha, A.N. (2014): Analytically approximate natural sloshing modes and frequencies in two-dimensional tanks. ***European Journal of Mechanics B/Fluids***, 47, 176-187
5. Gavrilyuk, I., Hermann, M., Lukovsky, I., Solodun, O., Timokha, A. (2013): Weakly-nonlinear sloshing in a truncated circular conical tank. ***Fluid Dynamics Research***, 45, Paper ID 055512, 1-30
6. Gavrilyuk, I., Hermann, M., Lukovsky, I., Solodun, O., Timokha, A. (2012): Multimodal method for linear liquid sloshing in a rigid tapered conical tank. ***Engineering Computations***, 29, No 2, 198-220