

CURRICULUM VITAE

Name: Semyon Levitsky

Date & place of birth: May 13, 1949, Dnepropetrovsk, Ukraine, USSR

Citizenship: Israeli

Date of arrival to Israel: November 26, 1996.

Marital status: Married +2.

Affiliation: SCE - Shamoon College of Engineering, Beer Sheva, 56 Bialik St, 84100.

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Military service: Exempted

1. Academic education

- 1982-1991 D.Sc. (Habilitation Thesis) in Mathematics and Physics. Institute of Multiphase Systems Mechanics, Tyumen, Russia. Dissertation title: Non-stationary dynamic and heat-mass transfer processes in polymeric liquids with bubbles. Adviser: Prof. Shulman ZP.
- 1972-1981 Ph.D. (Summa cum Laude) in Mathematics and Physics. Institute of Thermophysics, Novosibirsk, Russia. Dissertation title: Dynamics and heat-mass transfer of bubbles in rheologically complex systems. Adviser: Prof. Shulman ZP.
- 1966-1971 M.Sc. in Applied Mathematics and Mechanics. Voronezh State University, Russia. Dissertation title: Stability of non-Newtonian liquids flows on inclined plane. Adviser: Dr. Listrov, A.

2. Academic employment

- Since 2021 President, SCE - Shamoon College of Engineering, Israel.
- Since 2017 Dean of the Engineering Faculty, SCE - Shamoon College of Engineering, Israel.
- Since 2012 Full Professor. Mathematics Units, SCE - Shamoon College of Engineering, Israel.
- 2003-2012 Associate Professor. Mathematics Units, SCE - Shamoon College of Engineering, Israel.
- 1998-2003 Senior Lecturer. Mathematics Units, SCE - Shamoon College of Engineering, Israel.
- 1997-1998 Researcher. Blechner Center, Ben Gurion University of the Negev, Israel.
- 1992-1996 Full Professor. Department of Applied Mathematics and Mechanics, Voronezh State University, Russia.
- 1985-1992 Associate Professor. Department of Applied Mathematics and Mechanics, Voronezh State University, Russia.
- 1973-1985 Assistant Lecturer, Lecturer. Department of Applied Mathematics and Mechanics, Voronezh State University, Russia.

3. Industrial engineering experience

No

4. Academic research and development activities

4.1. Previous research and development activities

- 1997–2009 Modeling of atomizers for improved liquid atomization (3 peer reviewed papers + 6 papers in refereed conference and collective volumes)
- 1993–2008 Development of new control devices for different type hydraulic systems (4 peer reviewed papers + 10 patents)
- 1987–2008 Modeling of water hammer and flow regulation in complex pipelines (1 peer reviewed paper + 2 local papers/reports)
- 2003–2007 Modeling of stability loss of tubes and plates subjected to external corrosion (1 peer reviewed paper)
- 2004–2005 Modeling of water aeration (1 peer reviewed paper)
- 1997–2000 Modeling of bubble dynamics at high thermodynamic parameters (3 papers in refereed conference and collective volumes)
- 1984–2000 Modeling of boiling of high-molecular solutions (5 peer reviewed papers + invited chapter in a Handbook + 1 paper in refereed conference and collective volumes)
- 1987–2000 Modeling of explosive fragmentation of liquid metals (2 peer reviewed papers + 4 papers in refereed conference and collective volumes + 4 local papers/reports)
- 1997–1999 Modeling of sound waves in porous media with microbubbles (2 peer reviewed papers)
- 1988–1997 Modeling and development of devices for metallic powder production (1 peer reviewed paper + 2 paper in refereed conference and collective volumes + 1 patent)
- 1973–1996 Studies of dynamics, heat- and mass transfer of bubbles in rheologically complex liquids (2 monographs + 12 peer reviewed papers + 5 papers in refereed conference and collective volumes + 5 preprints/reports)
- 1994–1995 Investigation of role of rheological factor in the problem of gaseous embolism in blood (1 peer reviewed paper)
- 1984–1995 Modeling of features of relaxational diffusion at fast evaporation of solvent from polymeric solution (2 peer reviewed papers + 2 papers in refereed conference and collective volumes + 1 preprint)
- 1987–1988 Modeling of shock waves in viscoelastic liquid-gas mixtures (1 peer reviewed paper + 2 papers in refereed conference and collective volumes)
- 1980–1985 Modeling of sound wave propagation in polymeric liquids with vapor-gas bubbles (4 peer reviewed papers + 1 paper in refereed conference and collective volumes + 3 local papers/reports)
- 1971–1982 Modeling of surface waves in viscoelastic and micropolar liquids (3 papers in refereed conference and collective volumes + 1 local paper/report)

- 1974–1977 Modeling of surface-active film effect on bubble dynamics (2 peer reviewed papers)
- 1971–1973 Studies of stability of liquid crystal films flows (1 peer reviewed paper + 2 papers in refereed conference and collective volumes)
- 1970–1971 Modeling of ferromagnetic liquid flows in channels (1 paper in refereed collective volume)

4.2. Present research and development activities

- Since 2016 Modeling of pressure waves propagation in complex waveguides (7 peer reviewed papers + 7 papers in refereed conference and collective volumes)
- Since 2015 Modeling of temperature effect on bubble behavior in different liquids (2 papers)
- Since 2014 Modeling of pulse propagation in tubes with viscoelastic liquid (2 papers in conference proceedings)
- Since 2013 Modeling of temperature effect on pressure waves in tubes with viscoelastic liquid (2 papers in refereed journals and conference proceedings)
- Since 2012 Modeling of uniform corrosion impact on stability loss of a thin-walled shells (2 papers in refereed journals, 1 paper in conference proceedings)
- Since 2010 Modeling of sound waves propagation in polydispersed bubbly mixtures with rheologically complex liquid phase (3 papers in refereed journals, conference and collective volumes, 1 Chapter in a Handbook)
- Since 2007 Modeling of dynamic processes in different waveguides filled with viscoelastic liquid, containing fine gas bubbles (7 papers in refereed conference and collective volumes)
- Since 2002 Modeling of non-linear features at sound propagation in liquid-bubble mixtures (2 papers in refereed conference and collective volumes)
- Since 1999 Modeling of sound wave in thin-walled elastic tubes with polymeric liquid (6 peer reviewed papers + 3 papers in refereed conference and collective volumes)

5. Grants and awards

5.1. Grants

- 2012-2013 Levitsky S. (SCE). Propagation of Elasto-Acoustical Waves. Grant from the Rafael Co., Israel, 42000 sh.
- 1998-2000 Hershkovitz M., Levitsky S., Shreiber I. (BGU). Development of Mathematical Models and Tools for Diagnosis and Control of Three-Phase Reactor Performance, Blechner Center, Ben-Gurion University. Grant from Ministry of Science, Israel, \$250000.
- 1995-1996 Levitsky S. (Voronezh State University). Modeling of non-stationary vaporization processes in polymeric solutions. Grant from Russian National Academy of Science, Fund of Fundamental Researches.
- 1993 Levitsky S. (Voronezh State University). Mathematical modeling of regulating devices of a new type for city ecological systems. Grant from Regional Program, Voronezh, Russia.
- 1988-1991 Levitsky S. (Voronezh State University). Mathematical modeling of vapor explosions at melt interactions with a coolant. Grant from All-Union Institute of Light Alloys, Moscow, Russia.

1982-1984 Levitsky S. (Voronezh State University). Modeling of Water Hammer Phenomena in Special Hydraulic Systems. Design Bureau of Chemical Automatics, Voronezh, Russia.

5.2. Awards

- 2019 Nomination for the best lecturer of the year in Sami Shamoon College of Engineering. April, 2019.
- 2017-2020 Nomination for excellence in teaching in 2016, 2018, 2019, 2020, Mathematics Department, SCE.
- 2010 Beer-Sheva municipality award for achievements in education. October, 2010.
- 2008 Nomination for the best lecturer of the year at mathematics department of the Ben-Gurion University of the Negev. July, 2008.
- 2006 Nomination for the best lecturer of the year in Sami Shamoon College of Engineering. December, 2006.
- 2005 Inclusion in Who's Who in the World (23rd edition). 2006.
- 1997-2000 Shapiro Fund Fellow

6. List of publications (total number exceeds 180, only main publications are listed)

6.1. Peer reviewed papers in scientific journals

1. Levitsky, S & Bergman, R, 2020, Modeling of polymeric liquid material properties effect on pressure transients in the elastic pipe. Materials Science Forum, vol. 990, pp. 272-276.
2. Levitsky, S & Bergman, R, 2018 Pressure pulse propagation in a double-layered elastic tube with viscoelastic liquid. J. Phys.: Conf. Ser. vol. 1141-012080, pp. 1-7. doi:10.1088/1742-6596/1141/1/012080
3. Gutman, E., Bergman, R & Levitsky, S 2016 Influence of internal uniform corrosion on stability loss of a thin-walled spherical shell subjected to external pressure, Corrosion Science, vol. 111, pp.212-215. <http://dx.doi.org/10.1016/j.corsci.2016.04.018>
4. Levitsky, S 2015 Liquid temperature effect on sound propagation in polymeric solution with gas bubbles. Int. J. of Mech., Aerospace, Industrial and Mechatronics Engineering, vol. 9, No. 7, pp. 1167-1162.
5. Levitsky, S & Bergman, R, 2014 Temperature effect on sound propagation in an elastic pipe with viscoelastic liquid. Int. J. of Mech., Aerospace, Industrial and Mechatronics Engineering, vol. 8, No. 9, pp. 1513-1517.
6. Levitsky, S., Bergman, R & Haddad, J 2012 Effect of size-distributed bubbles on acoustic properties of an elastic tube with polymeric liquid. Multidiscipline Modeling in Materials and Structures, vol. 8, N4, pp. 469-488.
7. Bergman, R & Levitsky, S, 2012 Stability of a thin elastic plate at uniform corrosion. Journal of International Scientific publications: Materials, Methods & Technologies (MMM), vol. 6, part 2, pp. 175-181.
8. Levitsky, S, Bergman, R & Haddad, J 2012 Pressure waves propagation in an elastic shell with polydisperse liquid-gas mixture. Applied Mechanics and Materials (AMM), vol. 105-107, pp. 259-262.
9. Levitsky, S, Bergman R & Haddad, J 2011. Bubbles effect on sound dispersion in thin-walled tube with polymeric liquid and elastic central rod. Journal of Sound and Vibration, vol. 330, no. 13, pp. 3155-3165.
10. Levitsky, S, Bergman, R & Haddad, J 2010. Fluid rheology effect on wave propagation in an elastic tube with viscoelastic liquid, containing fine bubbles. Journal of Non-Newtonian Fluid Mechanics, vol. 165, no. 21-22, pp. 1473-1479.
11. Levitsky, S, Bergman, R & Haddad, J 2007. Low-frequency sound propagation in cylindrical gap, filled by polymeric solution. Acustica – Acta Acustica, vol. 93, no. 4, pp. 535-541.

12. Bergman, R, Levitsky, S, Haddad, J & Gutman, EM 2006. Stability loss of thin-walled cylindrical tubes, subjected to longitudinal compressive forces and external corrosion. *Thin-Walled Structures*, vol. 44, no. 7, pp. 726-729.
13. Levitsky, S, Bergman, R & Haddad, J 2004. Wave propagation in a cylindrical viscous layer between two elastic shells. *International Journal of Engineering Sciences*, vol. 42, no. 19-20, pp. 2079-2086.
14. Levitsky, S, Bergman, R & Haddad, J 2004. Sound dispersion in deformable tube with polymeric liquid and elastic central rod. *Journal of Sound and Vibration*, vol. 275, no. 1-2, pp. 267-281.
15. Levitsky, S, Bergman, R & Haddad, J 2002. Acoustic waves in cylindrical gap, filled by polymeric liquid. *Ultrasonics*, vol. 40, no. 1-8, pp. 703-706.
16. Dorniyak, OR, Levitsky, S, Shabunina, ZA & Shulman, ZP 2001. Interaction effects in film boiling on spherical particles. *Journal of Engineering Physics and Thermophysics*, vol. 74, no. 3, pp. 760-763.
17. Shtemler, YM, Levitsky, MP, Shreiber, IR, Levitsky, S & Berkovich, Y 2000. Two-stage atomization model for liquid jet disintegration in gas atomizers. *Journal of Applied Mechanics and Engineering*, vol. 5, no. 4, pp. 821-842.
18. Levitsky, S, Bergman, R & Haddad, J 2000. Acoustic waves in thin-walled elastic tube with polymeric solution. *Ultrasonics*, vol. 38, no. 1-8, pp. 857-859.
19. Herskowitz, M, Levitsky, S & Shreiber, I 2000. Attenuation of ultrasound in porous media with microbubbles. *Ultrasonics*, vol. 38, no. 1-8, pp. 767-769.
20. Levitsky, S, Bergman, R, Levi, O & Haddad, J 1999. Pressure waves in elastic tube with polymeric solution. *Journal of Applied Mechanics and Engineering*, vol. 4, no. 3, pp. 561-574.
21. Herskowitz, M, Levitsky, S & Shreiber, I 1999. Acoustic waves in a liquid-filled bed with microbubbles. *Acustica-Acta Acustica*, vol. 85, no. 6, pp. 793-799.
22. Levitsky, S 1996. Blood rheological factor in the problem of gaseous embolism. *Journal of Engineering Physics and Thermophysics*, vol. 69, no. 3, pp. 298-301.
23. Dorniyak, OR, Levitsky, S, Polev, VA, Shabunina, ZA & Shulman, ZP 1996. Effects of relaxational diffusion in film boiling of polymer solution. *Journal of Engineering Physics and Thermophysics*, vol. 69, no. 6, pp. 760-763.
24. Levitsky, S, Khusid, BM & Shulman, ZP 1996. Growth of vapor bubbles in boiling polymer solutions - II. Nucleate boiling heat transfer. *International Journal of Heat and Mass Transfer*, vol. 39, no. 3, pp. 639-644.
25. Shulman, ZP & Levitsky, S 1996. Growth of vapor bubbles in boiling polymer solutions - I. Rheological and diffusion effects. *International Journal of Heat and Mass Transfer*, vol. 39, no. 3, pp. 631-638.
26. Chetvertakova, SL, Dorniyak, OR & Levitsky, S 1996. Vapor-bubble growth in a superheated polymer solution. *Journal of Engineering Physics and Thermophysics*, vol. 69, no. 5, pp. 564-568.
27. Levitsky, S & Shulman, ZP 1995. Effects of relaxation diffusion during intense vaporization of a solvent from a polymer solution. *High Temperatures*, vol. 33, no. 4, pp. 609-613.
28. Shulman, ZP, Khusid, BM & Levitsky, S 1993. Special features of boiling of macromolecular polymer solutions. *Heat Transfer Research*, vol. 25, no. 7, pp. 872-878.

6.2. Books/collective volumes

6.2.1 Books/collective volumes (Authorship or editorship)

1. "Project Oriented Teaching", Eds. Levitsky S., Baimel D., Michaelan R., SCE, Beer-Sheva, 2018, 35 pp.
2. Dagan, M, Shechter, M, Bergman, R & Levitsky, S 2017. *Guide to Ordinary Differential Equations for Engineering*, 4rd ed., 351 pp., Beer Sheva: Print Otakot (in Hebrew).
3. Dagan, M, Shechter, M, Bergman, R & Levitsky, S 2011. *Guide to Ordinary Differential Equations for Engineering*, 3rd ed. Beer Sheva: Mahpil (in Hebrew).
4. Bergman, R, Dagan, M, Levitsky, S & Klass-Tzirulnikov, B 2003. *A Bilingual Guide to Linear Algebra*. Beer Sheva: Negev Academic College of Engineering (in Hebrew).

5. Belkin, I, Berezansky, L & Levitsky, S 2002. Problems in Calculus for Economists, 3rd ed. Beer Sheva: Ben Gurion University of the Negev (in Hebrew).
6. Dagan, M, Shechter, M, Bergman, R & Levitsky, S 2002. Guide to Ordinary Differential Equations, 3rd ed. Beer Sheva: Negev Academic College of Engineering (in Hebrew).
7. Levitsky, S & Shulman, ZP 1995. Bubbles in Polymeric Liquids: Dynamics and Heat-mass Transfer. Lancaster, USA: Technomic Publishing Co., Inc.
8. Levitsky, S & Shulman, ZP 1990. Dynamics, Heat and Mass Transfer of Bubbles in Polymeric Fluids. Minsk: Nauka & Tekhnika (in Russian).
9. Zinoviev, NM & Levitsky, S 1981. Theoretical Mechanics. Moscow: Moscow State University (in Russian).

6.2.2 Chapters in books

1. Levitsky S., Shulman Z 2019. Bubbles Dynamics and Boiling of Polymeric Solutions. Chapter 7.2 in: Handbook of Solvents, 3rd ed., Wypych, G., Editor, ChemTec Publish., Toronto, pp. 379-416.
2. Levitsky S., Shulman Z 2014. Bubbles Dynamics and Boiling of Polymeric Solutions. Chapter 7.2 in: Handbook of Solvents, 2nd ed., Wypych, G., Editor, ChemTec Publish., Toronto, pp. 367-402.
3. Levitsky, S & Shulman, Z 2001. Bubble Dynamics and Boiling of Polymetric Solutions, Chapter 7.2 in: Handbook of Solvents, Ed. Wypych, G, ChemTech Lab., Canada, pp. 356-385.

6.2.3 Articles in refereed conference volumes

1. Levitsky, S 2018 Temperature effect on sound scattering by fine bubbles in viscoelastic liquid 2018 In: Recent Advances in Mathematical and Statistical Methods, D. M. Kilgour et al, Eds., Springer, pp.271-278.
2. Levitsky, S. & Bergman, R 2017 Fluid rheology effect on wave attenuation in an elastic pipe. In: 30th Int. Symp. on Shock Waves 2: ISSW30, vol. 2. Eds.: G. Ben-Dor, O. Sadot and O. Igra, Springer Int. Publish., pp. 977-981.
3. Levitsky, S. & Bergman, R 2017 Numerical modeling of pulse propagation in viscoelastic waveguide, AIP Conf. Proc., v. 1863, p. 1 (2017), pp. 560014-560011 - 560014-560014.
4. Gutman, E, Bergman, R & Levitsky, S 2016 "On stability loss of a thin-walled spherical shell subjected to external pressure and internal homogeneous corrosion". Proc. of ECCOMAS 2016: VII European Congress on Computational Methods in Applied Sciences and Engineering, Crete Island, Greece, 5–10 June 2016, 7 pp.
5. Levitsky S., Bergman R. "Temperature effect on sound propagation in an elastic pipe with viscoelastic liquid". In the Proceedings of ICFTF 2014: International Conference on Fluids and Thermal Engineering, Rome, Italy, 2014, 18-19/09/2014, pp. 734-738.
6. Merhasin I, Hemo E, Levitsky S 2013. Phase velocity and attenuation of elastic waves in buried pipes filled with viscous fluid, 10 pp. The Proceedings of the 11th International Conference RASD, Pisa, Italy, 1-3/07/2013.
7. Levitsky S, Bergman R 2013. Low frequency wave propagation in cylindrical elasto-viscoelastic trilayer in the presence of free gas. The Proceedings of the 2013 Joint UFFC, EFTF, and PFM Symposium, Prague, 2013, 21-25/07/2013, pp. 1610-1613.
8. Levitsky, S, Bergman, R & Haddad, J 2010. Dissipative features at sound propagation in thin-walled tube with liquid-gas mixture. In Proceedings of the 50th Israel Annual Conference on Aerospace Sciences, Ed. Katoshevsky, D, Tel Aviv – Haifa, Israel, pp. 1-12.
9. Bergman, R, Levitsky, S & Haddad, J 2009. Sound propagation in thin-walled elastic pipe with viscous liquid-bubble mixture and deformable central rod. In 2009 IEEE International Ultrasonics Symposium Proceedings, Ed. Yuhas, MP, Rome, Italy, pp. 2065-2068.

10. Levitsky, S, Bergman, R & Haddad, J 2008. Sound propagation in viscoelastic pipe with liquid-bubble mixture. In Proceedings of the Acoustics'08 Congress, Ed. Botteldooren, D, Paris, France, pp. 4383-4388.
11. Levitsky, MP, Korin, E, Haddad, J, Levitsky, SP, Levy, Y, Sherbaum, V, Ovcharenko, V & Berkovich, Y 2008. A novel gas-assist atomizer for power stations. In Proceedings of 9th Biennial ASME Conference on Engineering Systems Design and Analysis, Eds. Fischer, A, Degani, D, et al, Technion, Haifa, Israel, paper ESDA 2008-59248, pp. 1-10.
12. Levitsky, S, Bergman, R & Haddad, J 2007. Acoustic properties of thin-walled elastic tube, containing polymeric liquid with fine bubbles. In Proceedings of the 19th International Congress on Acoustics, Eds. Calvo-Manzano, A, Pérez-López, A & Santiago, S, Madrid, Spain, pp. 1-6.
13. Levitsky, M, Levitsky, S, Haddad, J, Levy, Y, Sherbaum, V & Ovcharenko, V 2006. The results of experimental exploration on developing an atomizer for air humidification with low operational parameters', in Ecological Engineering and Ecosystems. In Proceedings of the 9th Annual Ecological Conference, Ed. Manusov, N, Jerusalem, Israel, pp. 46-54.
14. Levitsky, S, Bergman, R & Haddad, J 2006. Pressure waves in a layered elastic tube with viscoelastic liquid. In Proceedings of the Thirteenth International Congress on Sound and Vibration (ICSV13), Vienna, Eds.: Eberhardsteiner, J, Mang, HA & Waubke, H, Vienna University of Technology, Austria, pp. 1-8.
15. Levy, Y, Sherbaum, V, Ovcharenko, V, Levitsky, S & Levitsky, M 2006. Experimental study of air-assist atomizers for fogging systems. In Proceedings of ASME Turbo Expo 2006 Power for Land, Sea and Air, Barcelona, Spain, Ed. by ASME, paper GT2006-90706, pp. 1-8.
16. Levitsky, SP, Bergman, RM & Haddad, J 2005. Elasto-viscoelastic interaction at sound propagation in polymeric liquid layer between coaxial shells. In Proceedings of the Forum Acusticum 2005, Eds. Vorlander, M & Reis, F, Budapest, Hungary, pp.1139-1342.
17. Levitsky, SP & Haddad, J 2004. Dissipation features at nonlinear pulsations of bubbles in viscoelastic fluids. In Proceedings of the 21st International Congress of Theoretical and Applied Mechanics, Eds. Gutkowski, W & Kowalewski, T, Warsaw, Poland, paper FM4S 11648, pp. 1-2.
18. Levitsky, S 2002. On nonlinear scattering of sound by small bubble in polymeric liquid. In Nonlinear Acoustics at the Beginning of the 21st Century, Eds. Rudenko, OV & Sapozhnikov, OA, Moscow, Russia, Moscow State University, vol. 2, pp. 927-930.
19. Levitsky, S & Haddad, J 2000. On bubble dynamics in polymeric solution at high pressure. In Heat- and Mass Transfer MIF-2000, Eds. Shulman, ZP, Korobko, EV et al, Minsk, Belarus, A.V. Luikov Heat & Mass Transfer Institute, vol. 7, pp. 155-158.
20. Levitsky, SP, Bergman, R, Haddad, J & Shulman ZP 2000. Non-stationary flow of compressible polymeric liquid in visco-elastic pipe. In Heat- and Mass Transfer MIF-2000, Eds. Shulman, ZP, Korobko, EV et al, Minsk, Belarus, AV Luikov Heat & Mass Transfer Institute, vol. 7, pp. 3-10.
21. Shreiber, I, Shtemler, Y, Herskowitz, M & Levitsky, S 1999. On bubble oscillations at near critical gas state. In Two-Phase Flow Modeling and Experimentation, Eds. Celata, GP, Di Marco, P & Shah, RK, Pisa, Italy, vol. 2, pp. 1003-1007.
22. Shtemler, YM, Levitsky, MP, Shreiber, IR & Levitsky, SP 1999. On liquid jet disintegration in gas nozzles. In Two-Phase Flow Modeling and Experimentation, Eds. Celata, GP, Di Marco, P & Shah, RK, Pisa, Italy, vol. 3, pp. 1923-1928.
23. Shulman, ZP & Levitsky, SP 1987. Rheological factor in non-linear wave dynamics in two-phase systems. In Problems of Non-Linear Acoustics, Ed. Kutateladze, SS, Novosibirsk, USSR, Institute of Theoretical and Applied Mechanics, Siberian Branch of the USSR Academy of Sciences, pp. 38-40.
24. Shulman, ZP, Shabunina, ZA & Levitsky, SP 1984. Certain problems of non-isothermal dynamics of polymeric systems. In Heat & Mass Transfer-VII, Ed. Shulman, ZP, Minsk, Belarus, Heat & Mass Transfer Institute, Byelorussian Academy of Sciences, vol. 5, part 2, pp. 167-172.

25. Levitsky, SP & Listrov, AT 1981. Rheodynamic factor and heat and mass transfer at bubble oscillations in hereditary media. In *Advances in Polymer Rheology*, Ed. Vinogradov, GV & Malkin AY, Moscow, Russia, Nauka, part 2, pp. 247-249.
26. Levitsky, SP 1980. Interaction between a longitudinal perturbation wave with a vapor-gas bubble in polymeric solution. In *Physical Hydrodynamics and Thermal Processes*, Institute of Thermophysics, Siberian Branch of the USSR Academy of Sciences, Ed. Kutateladze, SS, Novosibirsk, USSR, pp.39-44.
27. Levitsky, SP & Listrov, AT 1980. Study of the influence of dissipation, thermal and rheological factors on free oscillations of gas bubbles. In *Heat & Mass Transfer-VI*, Ed. Shulman, ZP, Minsk, Belarus, Heat & Mass Transfer Institute, Byelorussian Academy of Sciences, pp.80-88.

6.3 Papers and abstracts – proceedings of conferences

6.3.1 Invited conference plenary lectures

1. Levitsky, S., Berman R., Haddad J. Pressure waves propagation in an elastic shell with polydisperse liquid-gas mixture, International Conference on Vibration, Structural Engineering and Measurement, Shanghai, China, 2011 (Invited Keynote Speech).
2. Levitsky, S. P. Rheodynamic factor and heat exchange at bubble oscillations in hereditary media, 11th Rheological Symposium, Voronezh, USSR, 1980.
3. Levitsky, S.P. Non-equilibrium phenomena at boiling of high-molecular solutions, International School on Rheophysics and Thermophysics of Non-Equilibrium Systems, Minsk, Belarus, 1991.

6.3.2 Contributed conference presentations

1. Levitsky, S & Bergman, R 2019 "Modeling of polymeric liquid material properties effect on pressure transients in the elastic pipe". 4th International Conference on Materials Technology and Applications (ICMTA2019), Kyoto, October 11-14, 2019.
2. Levitsky, S & Bergman, R 2018 "Pressure pulse propagation in a double-layered elastic tube with viscoelastic liquid". 7th International Conference on Mathematical Modeling in Physical Sciences (IC-MSQUARE 2018), Moscow, August 27-31, 2018.
3. Levitsky, S 2017 "Temperature effect on sound scattering by fine bubbles in viscoelastic liquid". 4th International Conference on Applied Mathematics, Modeling and Computer Simulations (AMMCS 2017), Canada, Waterloo, August 20-25, 2017.
4. Levitsky, S & Bergman, R 2016 "Numerical Modeling of Pulse Propagation in Viscoelastic Waveguide". International Conference of Numerical Analysis and Applied Mathematics 2016 (ICNAAM 2016), Greece, Rhodes, September 19-25, 2016.
5. Gutman, E, Bergman, R & Levitsky, S "On Stability Loss of a Thin-Walled Spherical Shell Subjected to External Pressure and Internal Homogeneous Corrosion". ECCOMAS 2016: VII European Congress on Computational Methods in Applied Sciences and Engineering, Crete Island, Greece, 5–10 June 2016.
6. Levitsky S., Bergman R. "Fluid Rheology Effect on Wave Attenuation in an Elastic Pipe". ISSW30 2015: 30th International Symposium on Shock Waves, T-A, July 19-24, 2015.
7. Levitsky S. "Liquid Temperature Effect on Sound Propagation in Polymeric Solution with Gas Bubbles". ICMSE 2015: 17th International Conference on Mechanical Sciences and Engineering, Zurich, July 29-30, 2015.

8. Levitsky S., Bergman R. “Temperature effect on sound propagation in an elastic pipe with viscoelastic liquid. ICFTF 2014: International Conference on Fluids and Thermal Engineering, Rome, Italy, 2014, 18-19/09/2014.
9. Merhasin I., Hemo E., Levitsky S., “Phase velocity and attenuation of elastic waves in buried pipes filled with viscous fluid”. In the Proceedings of the 11th International Conference RASD, Pisa, Italy, 2013, 1-3/07/2013.
10. Levitsky S., Bergman R., “Low frequency wave propagation in cylindrical elasto-viscoelastic trilayer in the presence of free gas”. In the Proceedings of the 2013 Joint UFFC, EFTF, and PFM Symposium, Prague, 2013, 21-25/07/2013.
11. Bergman, R. & Levitsky, S. Stability of a thin elastic plate at uniform corrosion. Materials, Methods & Technologies, 14th Annual International Symposium, Sunny Beach, Bulgaria, 11-15 June 2012.
12. Levitsky S., Bergman R., Haddad J., Pressure Waves Propagation in an Elastic Shell with Polydisperse Liquid-Gas Mixture. The International Conference ICVSEM 2011, Shanghai, China, 20-23.10.2011.
13. Levitsky, S., Bergman, R. & Haddad, J. Dissipative features at sound propagation in thin-walled tube with liquid-gas mixture. The 50th Israel Annual Conference on Aerospace Sciences. Tel Aviv – Haifa, Israel, 17-18 February, 2010.
14. Bergman, R., Levitsky, S. & Haddad, J. Sound propagation in thin-walled elastic pipe with viscous liquid-bubble mixture and deformable central rod. The 2009 IEEE International Ultrasonics Symposium, Rome, Italy, 20-23 September 2009.
15. Levitsky, S., Bergman, R. & Haddad J. On acoustic detection of microbubbles in flowing polymeric solution. The 60th Annual Conference of the Israel Chemical Engineering Society, Tel-Aviv, Israel, 26 November 2008.
16. Korin, E., Levitsky, M. & Levitsky S. About fine air bubbles creating in water oxidation technology. The 60th Annual Conference of the Israel Chemical Engineering Society, Tel-Aviv, Israel, 26 November 2008.
17. Korin, E., Levitsky, M. & Levitsky S. Reducing of air pollution at fuel combustion as one of environmental protection problem. The 60th Annual Conference of the Israel Chemical Engineering Society, Tel-Aviv, Israel, 26 November 2008.
18. Levitsky, S., Bergman, R. & Haddad, J. Sound propagation in viscoelastic pipe with liquid-bubble mixture. The Acoustics'08 Congress, Paris, France, 30 June – 4 July 2008.
19. Levitsky, M.P., Korin, E., Haddad, J., Levitsky, S.P., Levy, Y., Sherbaum, V., Ovcharenko, V. & Berkovich Y. A novel gas-assist atomizer for power stations. The 9th Biennial ASME Conference on Engineering Systems Design and Analysis, Technion, Haifa, Israel, 7 - 9 July 2008.
20. Levitsky, S., Bergman, R. & Haddad, J. Acoustic properties of thin-walled elastic tube, containing polymeric liquid with fine bubbles. The 19th International Congress on Acoustics, Madrid, Spain, 2-7 September 2007.
21. Bergman, R.M., Levitsky, S.P. & Haddad, J. Stability loss of thin-walled rectangular plates, subjected to compressive forces and uniform corrosion. Campi 2007, 3rd Israel (International) Conference, SCE, Beer-Sheva, Israel, 29-31 May 2007.
22. Levitsky, S. & Bergman, R. Free gas effect on sound propagation in a waveguide with viscoelastic liquid. The 2nd SCE Researchers Meeting, SCE, Beer-Sheva, Israel, 17 October 2007.
23. Korin, E., Levitsky, M., Ladizansky Y., & Levitsky S. Small flow rates control at large pressure drops with a vortex device. The 2nd SCE Researchers Meeting, SCE, Beer-Sheva, Israel, 17 October 2007.

24. Levitsky, S., Grinis, L. & Levitsky, M. Water oxygenation by fine bubbles for multipurpose water treatment. The 1st SCE Researches Meeting, SCE, Beer-Sheva, 18 October 2006.
25. Levitsky, S., Bergman, R. & Haddad, J. Acoustics of waveguides with viscoelastic liquid. The 1st SCE Researches Meeting, SCE, Beer-Sheva, 18 October 2006.
26. Bergman, R., Levitsky, S., Haddad, J. & Gutman, E.M. Stability of thin-walled cylindrical pipes, subjected to simultaneous action of external loads and general corrosion. The 1st SCE Researches Meeting, SCE, Beer-Sheva, 18 October 2006.
27. Levitsky, S., Bergman, R. & Haddad, J. Pressure waves in a layered elastic tube with viscoelastic liquid. The 13th International Congress on Sound and Vibration (ICSV13), Vienna, Austria, 2-6 July 2006.
28. Levy, Y., Sherbaum, V., Ovcharenko, V., Levitsky, S. & Levitsky M. Experimental study of air-assist atomizers for fogging systems. The ASME Conference “Turbo Expo 2006 Power for Land, Sea and Air”, Barcelona, Spain, 8-11 May 2006.
29. Levitsky, S.P., Bergman, R.M. & Haddad, J. ‘Elasto-viscoelastic interaction at sound propagation in polymeric liquid layer between coaxial shells. European Conference on Acoustics “Forum Acusticum 2005”, Budapest, Hungary, 28 August –2 September 2005.
30. Bergman, R.M., Levitsky, S.P., Haddad, J. & Gutman E.M. Stability of thin-walled cylindrical pipes subjected to simultaneous action of longitudinal compressive forces and uniform corrosion. CAMPI 2005, 2nd Israel Conference, SCE, Beer-Sheva, 1-2 June 2005.
31. Levitsky, S.P. & Haddad, J. Dissipation features at nonlinear pulsations of bubbles in viscoelastic fluids. The 21st International Congress of Theoretical and Applied Mechanics, Warsaw, Poland, 15-21 August 2004.
32. Levitsky, S.P. On nonlinear scattering of sound by small bubble in polymeric liquid’, the International Symposium on Nonlinear Acoustics ISNA-16, Moscow, Russia, 19-23 August 2002.
33. Levitsky, S., Bergman, R. & Haddad J. Acoustic waves in cylindrical gap, filled by polymeric liquid. The International Conference Ultrasonics 2001, Delft, Holland, 3-5 July 2001.
34. Levitsky, S.P. Bubble dynamics in a polymeric solution at high pressures. The Heat & Mass Transfer Congress MIF-2000, Minsk, Belarus, 22-26 May 2000.
35. Levitsky, S.P., Bergman, R. & Shulman, Z.P. Unsteady state compressible polymeric fluid flow in a viscoelastic tube. The Heat & Mass Transfer Congress MIF-2000, Minsk, Belarus, 22-26 May 2000.
36. Levitsky, S., Bergman, R. & Haddad, J. Acoustic waves in thin-walled elastic tube with polymeric solution. The 1999 World Congress on Ultrasonics, Copenhagen, Denmark, 29 June – 1 July, 1999.
37. Herskowitz, M., Levitsky, S. & Shreiber, I. Attenuation of ultrasound in porous media with microbubbles. The 1999 World Congress on Ultrasonics, Copenhagen, Denmark, 29 June – 1 July 1999.
38. Shreiber, I., Shtemler, Y., Herskowitz, M. & Levitsky, S. On bubble oscillations at near critical gas state. The 2nd International Symposium on Two-Phase Flow Modeling and Experimentation, Pisa, Italy, 23-26 May 1999.
39. Shtemler, Y.M., Levitsky, M.P., Shreiber, I.R. & Levitsky, S.P. On liquid jet disintegration in gas nozzles. The 2nd International Symposium on Two-Phase Flow Modeling and Experimentation, Pisa, Italy, 23-26 May 1999.

40. Levitsky, S.P., Polev, V.A. & Shulman, Z.P. Free convection heat transfer at boiling of binary polymeric solutions on a vertical plate. The Voronezh Mathematical School "Modern Methods of Theory of Functions and Adjacent Problems of Applied Mathematics", Voronezh, Russia, 27 February – 2 March 1995.
41. Levitsky, S.P., Dorniyak, O.R. & Chetvertakova, S.A. Generalized Raleigh equation for vapor bubble in polymeric solution in non-equilibrium-diffusion approximation. The 10th Winter School on Mechanics of Continuous Media, Perm, Russia, February 1995.
42. Levitsky, S.P., Shulman, Z.P. & Polev, V.A. On film boiling of polymeric solution on a vertical plate. The 10th Winter School on Mechanics of Continuous Media, Perm, Russia, February 1995.
43. Dorniyak, O.R., Levitsky, S. P. & Chetvertakova, S.L. Condensation of a vapor bubble in supercooled polymeric solution. The Mathematical School "Pontryagin's Readings - Y", Voronezh, Russia, January 1994.
44. Levitsky, M.P., Glushakov, A.N. & Levitsky, S.P. Scheme solutions on development of high precise hydraulic system for maintenance of components ratio in rocket engines. The 3rd China-Russia-Ukraine Symposium on Space Science and Technique, Sian, China, October 1994.
45. Shulman, Z.P., Levitsky, S.P., Dorniyak, O.R. & Chetvertakova, S.L. Non-linear rheodynamics and mass transfer at growth of vapor bubbles in boiling solutions of polymers. The 17th International Symposium of Rheology, Saratov, Russia, June 1994.
46. Levitsky, S. P. Boiling of polymeric solutions: micro-and macro features. The Mathematical School "Pontryagin's Readings - Y", Voronezh, Russia, January 1994.
47. Levitsky, S.P. & Yatzkina, A.V. Dynamics of vapor-gas bubbles in polymeric liquid after a weak pressure drop. The Regional Conference "Information Technologies and Systems", Voronezh, Russia, April 1993.
48. Levitsky, S.P. & Chetvertakova, S.L. Modeling of heat transfer at non-linear vapor bubble interaction with polymeric solution. The Regional Conference "Information Technologies and Systems", Voronezh, Russia, April 1993.
49. Levitsky, S.P. & Shulman, Z.P. Relaxation phenomena and mass transfer at bubbles growth in boiling solutions of polymers. The Conference "Rheology-92", Dnepropetrovsk, Ukraine, October 1992.
50. Levitsky, S.P. Heat transfer and rheodynamics in boiling solutions of macromolecules. The Mathematical School "Modern Methods in the Theory of Boundary Problems", Voronezh, Russia, February 1991.
51. Levitsky, S.P. Dynamics and heat-mass transfer at bubbles motion in rheologically complex liquids. The All-Union Conference "Mathematical and Computer Modeling", Voronezh, Russia, May 1991.
52. Levitsky, S.P., Shulman, Z.P. & Sergacheva, S.A. Modeling of non-equilibrium phenomena at boiling of polymeric solutions. The All-Union Conference "Mathematical and Computer Modeling", Voronezh, Russia, May 1991.
53. Shulman, Z. P. & Levitsky S. P. Mass transfer in macromolecular solutions and specific features of boiling of polymeric liquids. The All-Union Symposium "Thermophysics of Relaxing Systems", Tambov, Russia, May 1990.
54. Shulman, Z.P., Khusid, B.M., Levitsky, S.P. & Sergacheva, S.A. Dynamics of vapor film in polymeric liquid at high-temperature surface. The 15th Rheological Symposium, Odessa, Ukraine, September 1990.

55. Levitsky, S.P. Diffusion and relaxation effects at vapour bubbles and films growth in polymeric solutions. The 15th Rheological Symposium, Odessa, Ukraine, September 1990.
56. Shulman, Z.P., Levitsky, S.P. & Sergacheva, S.A. Initial stage of vapor bubble growth in elasto-viscous polymeric liquid. The All-Union Conference "Mathematical Modeling of Technological Processes in Materials Treatment", Perm, Russia, June 1990.
57. Levitsky, S.P., Shulman, Z.P. & Khusid, B.M. Modeling of diffusion transfer in relaxing polymeric solutions. The All-Union Conference "Mathematical Modeling of Technological Processes in Materials Treatment", Perm, Russia, June 1990.
58. Mitin, V.P., Levitsky, S.P. & Dorniyak, O.R. Modeling of melt explosion at interaction with evaporating liquid. The All-Union Conference on Progressive Methods of Fusion and Casting of Non-Ferrous Metals and Alloys, Moscow, Russia, September 1989.
59. Levitsky, S.P., Mitin, V.P. & Sergacheva, S.A. Dynamics and heat transfer of high-temperature particles in operation zone of centrifugal granulator. The All-Union Conference on Progressive Methods of Fusion and Casting of Non-Ferrous Metals and Alloys, Moscow, Russia, September 1989.
60. Shulman, Z.P., Levitsky, S.P. & Khusid, B.M. Processes of non-stationary transfer at solvent evaporation from polymeric solutions. The All-Union Seminar on Modern Problems in Oil- and Gas Mechanics", Baku, Azerbaijan, October 1988.
61. Shulman, Z.P. & Levitsky, S.P. Dynamics of pressure disturbances propagation in high viscous polymeric systems with gas bubbles. The All-Union Conference "Processes and Equipment for Polymers Treatment", Moscow, Russia, June 1986.
62. Shulman, Z.P. & Levitsky, S.P. Wave equations for polymeric liquid with gas bubbles. The All-Union School-Seminar "Mathematic Modeling in Science and Technique", Perm, Russia, July 1986.
63. Levitsky, S.P., Mitin, V.P. & Sergacheva, S.A. Heat- and mass transfer at interaction of a liquid metal particle with a coolant. The 4th All-Union Conference on Heat- and Mass Transfer Processes in Fusing Baths, Zhdanov, Ukraine, October 1986.
64. Shulman, Z.P. & Levitsky, S.P. Nonlinear cavity dynamics in relaxing polymeric liquids. The 4th Symposium on Physics of Hydrodynamic Phenomena, Ashgabat, Turkmenistan, October 1985.
65. Shulman, Z.P., Levitsky, S.P. & Koltzova, V.M. Sound propagation in polymeric solutions with filler. The 3rd All-Union Symposium on Theory of Mechanical Treatment of Polymeric Materials, Perm, Russia, June 1985.
66. Shulman, Z.P. & Levitsky, S.P. Growth and collapse of cavities in polymeric solutions. The 3rd All-Union Symposium on Theory of Mechanical Treatment of Polymeric Materials, Perm, Russia, June 1985.
67. Shulman, Z.P. & Levitsky, S.P. On ultrasound diagnostics of bubbles in polymeric liquids. The 5th All-Union Conference "Methods and Techniques of Ultrasound Spectroscopy", Vilnius, Lithuania, May 1984.
68. Shulman, Z.P. & Levitsky, S.P. Propagation of pressure disturbances in polymeric solutions with vapor bubbles. The 13th Rheological Symposium, Volgograd, Russia, July 1984.
69. Shulman, Z.P. & Levitsky, S.P. On pulsations of vapor-gas inclusions in relaxing liquid at sound field excitation. The 3rd All-Union Conference on Mechanics of Anomalous Systems, Baku, Azerbaijan, November 1982.

70. Shulman, Z.P. & Levitsky, S.P. Dynamics and heat-mass transfer in rheologically complex media. The 2nd All-Union Seminar on Hydrodynamics and Heat-Mass Transfer at Weightlessness, Perm, Russia, June 1981.
71. Shulman, Z.P. & Levitsky, S.P. Dynamics of vapor-gas inclusions in polymeric systems. The 2nd All-Union Symposium on Theory of Mechanical Treatment of Polymeric Materials, Perm, Russia, June 1980.
72. Levitsky, S.P. Heat-mass transfer and rheology effects at sound propagation in hereditary medium with vapor-gas bubbles. The Ural Conference on Mechanics of Continuous Media, Perm, Russia, October 1980.

6.3.3 Seminar presentations

1. Levitsky S. 2013, 'Acoustic waves propagation in elastic tubes with viscous liquid', RAPHAEL Co., Israel.
2. Levitsky, S. 2004, 'Dynamics of interfaces in polymeric liquids: certain features and models', the Ben-Gurion University of the Negev, Beer-Sheva, Israel.
3. Levitsky, S. 2003, 'Notion of vector space in linear algebra', the Negev Academic College of Engineering, Beer-Sheva, Israel.

6.4 Patents

1. Stepanyuk, VI, Obydenov, VV, Dreger, VV, Levitsky, SP & Levitsky, MP 1997. Device for water degassing on heat stations. Patent RF, no. 2077679, 20.04.97.
2. Levitsky, MP & Levitsky, SP 1996. Locking and regulating device. Patent RF, no. 2065112, 10.08.96.
3. Kurguzkin, BN, Levitsky, SP, Levitsky, MP & Fuks, II 1996. Quick-acting valve for large diameter pipelines. Patent RF, no. 2067714, 10.10.96.
4. Kurguzkin, BN, Levitsky, SP, Levitsky, MP & Fuks, II 1996. Shutoff valve. Patent RF, no. 94-000967/06., 13.09.96.
5. Vainshtein, AV, Levitsky, SP & Levitsky, MP 1995. Recirculating Valve. Patent RF, no. 20312297, 20.03.95..
6. Volkov, AV, Shevchuk, SA, Vainshtein, AV, Levitsky, SP & Levitsky, MP 1995. Regulating Valve. Patent RF, no. 2031291, 20.03.95.
7. Levitsky, SP, Levitsky, MP & Vainstein, AV 1993. Shutoff valve. Patent RF, no. 2005247, 30.12.93.
8. Volkov, AV, Levitsky, SP & Levitsky, MP 1992. Regulating valve. Patent RF, no. 1813949, 11.10.92.
9. Glushakov, AN, Korobchenko, VA, Levitsky, SP, Levitsky, MP & Myshlyaev, SA 1993. Controlling throttle. Patent RF, no. 1789820, 22.09.92.
10. Levitsky, SP, Mitin, VP & Temchin, MZ 1989. Method for production of metallic powder and device for its realization. Patent USSR, no. 1552467, 22.11.89.

6.5 Other publications/reports

1. Shulman, Z P & Levitsky, S 1991. Evaporation of solvent from polymer solution at interaction with high-temperature surface. Heat and Mass Transfer Institute, Byelorussian Academy of Sciences, Minsk, Preprint no. 7, pp. 1-35.
2. Dornyak, OR, Levitsky, SP & Mitin, VP 1989. About one model of melt fragmentation at vapor explosion. Article deposited at VINITI, Moscow, registration no. 2761-B81, pp.1-25.

3. Levitsky, SP, Dorniyak, OR & Mitin, VP 1989. On modeling of melt disintegration at vapor explosion. Article deposited at VINITI, Moscow, registration no. 2161-B89, pp. 1-25.
4. Levitsky, SP, Novoselsky, LM, Aksenova, LM, Listrova, YP & Solomonov, KN 1989. On the influence of structure elements on water hammer parameters in high-pressure pipelines. Article deposited at VINITI, Moscow, registration no. 2185-B89, pp.1-17.
5. Mitin, VP, Levitsky, SP & Sergacheva, SA 1988. On pressure pulse calculation at high-temperature particles interaction with a liquid surface. Article deposited at VINITI, Moscow, registration no. 3618-B88, pp. 1-17.
6. Mitin VP, Levitsky SP & Novoselsky LM 1987. Dynamics of pressure changes at the initial stage of condensed phase evaporation in a high-temperature medium. Article deposited at VINITI, Moscow, registration no. 6012-B27, pp.1-19.
7. Listrova, YP, Levitsky, SP, Orlov, VA, Efremov, YA, Aksenova, LI & Solomonov, KN 1987. Modeling of water hammer wave interaction with a turbine. Article deposited at VINITI, Moscow, registration no. 4170-B87, pp.1-7.
8. Shulman, ZP & Levitsky, SP 1985. Sound waves in two-phase polymeric solutions. Heat & Mass Transfer Institute, Byelorussian Academy of Sciences, Minsk, Preprint no. 9, pp. 1-38.
9. Shulman, ZP & Levitsky SP 1984. Dynamics & heat & mass transfer of bubbles in relaxing polymeric liquids. Heat & Mass Transfer Institute, Byelorussian Academy of Sciences, Minsk, Preprint no. 2, pp.1-54.
10. Listrov, AT & Levitsky, SP 1982. Waves in two-phase media. The method of multiple scattering. Voronezh State University, Voronezh, pp. 1-24.
11. Dorniyak, OR, Levitsky, SP & Listrov, AT 1982. Dispersion of surface waves in polymeric solution with heat-mass transfer at the interface. Article deposited at VINITI, Moscow, registration no. 4732-82, pp.1-14.
12. Levitsky, SP 1980. Collective dynamics of vapor-gas bubbles in hereditary medium at sound and heat perturbations. Article deposited at VINITI, Moscow, registration no. 5030-80, pp. 1-16.
13. Levitsky, SP 1980. Thermophysics of vapor-gas bubbles, oscillating in polymer solution at periodic pressure changes. Article deposited at VINITI, Moscow, registration no. 5032-80, pp.1-16.
14. Levitsky, SP 1980. Effective dissipative and elastic coefficients of vapor-gas bubbles in organic liquids with small evaporation enthalpy. Article deposited at VINITI, Moscow, registration no. 5029-80, pp.1-16.
15. Levitsky, SP, Dorniyak, OR & Listrov, AT 1979. Numerical study of nonlinear oscillations of a gas bubble in viscoelastic liquid with heat transfer. Article deposited at VINITI, Moscow, registration no. 725-79, pp.1-14.
16. Levitsky, SP & Dorniyak, OR 1978. Nonlinear dynamics of gas bubble in nonlinear viscous liquid with heat transfer. Article deposited at VINITI, Moscow, registration no. 1423-78, pp. 1-14.

7. Academic roles

Since 2019 Head of the Appointments Committee, Shamon College of Engineering, Israel

Since 2017 Member of Research Relations Commission, Shamon College of Engineering, Israel

Since 2017 Dean of the Engineering Faculty, Shamon College of Engineering, Israel

2015-2017 Head of the Appeal Commission, Shamon College of Engineering, Israel

Since 2010 Coordinator of mathematical courses at the Mechanical Engineering Department, Shamon College of Engineering, Israel

Since 2004 Member of the Academic Council, Sami Shamon College of Engineering, Israel

2004-2009 Head of the Disciplinary Commission, Shamon College of Engineering, Israel

- 2006-2007 Member of the Programming Group for New Specialties, Shamoon College of Engineering, Israel
- 1994-1996 Member of Ph.D. and D.Sc. Regional Academic Council, Voronezh Polytechnic Academy, Russia
- 1976-1996 Member of the Faculty Academic Council, Department of Applied Mathematics and Mechanics, Voronezh State University, Russia
- 1975-1993 Assistant Dean, Department of Applied Mathematics and Mechanics, Voronezh State University, Russia

8. Preparation of academic programs

1. Stianov P., Shainsky S., Levitsky S. Special program for advanced studies of the school mathematics teachers. Sami Shamoon College of Engineering, 2011.
2. Lapidot I., Levitsky S. Academic program for advanced mathematics track for B.Sc. students. Sami Shamoon College of Engineering, 2010.
3. Laslo Z., Solomon A., Levitsky S. B.Sc. Academic program for water engineering. Sami Shamoon College of Engineering. Submitted for approval to the Israeli Council of Higher Education, 2006.
4. Laslo Z., Solomon A., Levitsky S. M.Sc. Academic program for operations research. Sami Shamoon College of Engineering. Submitted for approval to the Israeli Council of Higher Education, 2006.

9. Courses taught

<u>Years</u>	<u>Program</u>	<u>Class sizes</u>	<u>Course</u>	<u>Institution</u>
Since 2018	M.Sc.	15	Mathematical methods for green engineering	SCE
Since 2017	B.Sc.	90	Applied mathematics for mechanical engineering	SCE
Since 2016	B.Sc.	90	Vector analysis and engineering mathematics for mechanical engineering	SCE
Since 2015	M.Sc.	18	Advanced mathematics for electrical engineering	SCE
Since 2011	B.Sc.	65-80	Engineering mathematics for mechanical engineering	SCE
Since 2004	B.Sc.	80-100	Calculus 2	BGU
Since 2002	B.Sc.	65-90	Engineering mathematics for electrical engineering	SCE
Since 1999	B.Sc.	45-80	Linear Algebra	SCE
Since 1998	B.Sc.	40-90	Calculus 1	SCE
Since 1998	B.Sc.	40-90	Calculus 2	SCE
Since 1998	B.Sc.	40-90	Differential equations	SCE
2007-2008	M.Sc.	26	Modern analysis	BGU
2004-2005	B.Sc.	70	Vector analysis	SCE
2000-2003	B.Sc.	45-75	Calculus for economists	BGU
2000-2002	B.Sc.	45-60	Differential equations and complex functions	SCE
1998-2001	B.Sc.	45-65	Advanced engineering	SCE

			mathematics 1	
1997-1998	Tech.	50-60	Mathematics for technicians	TC
1979-1996	M.Sc.	25-30	Mathematical modeling of multiphase systems	VSU
1984-1996	B.Sc.	90-120	Molecular and statistical physics	VSU
1980-1993	B.Sc.	90-120	Theoretical mechanics	VSU
1978-1988	M.Sc.	30-40	Mechanics of continuous media	VSU
1976-1985	M.Sc.	30-40	Tensor and vector analysis	VSU
1976-1990	M.Sc.	30-40	Hydrodynamics of viscous flows	VSU
1973-1989	M.Sc.	25-30	Asymptotic methods in hydrodynamic stability	VSU

SCE – Shamoon College of Engineering, Beer-Sheva

BGU – Ben-Gurion University of the Negev, Beer-Sheva

TC – Technological College, Beer-Sheva

VSU – Voronezh State University, Voronezh, Russia

10. Editorial roles

10.1 Manuscripts reviewer

2019	Journal of Mathematics, Ultrasonics – Sonochemistry, Thermochemica, ICMTA2019
2018	International Journal of Fluid Dynamics Research
2016	The Journal of the American Acoustical Society (JASA)
2015	Electronic Journal of Differential Equations
2015	International Food Research Journal
2014	Journal Acta Acustica united with Acustica, Journal Shock and Vibration
2013	International Journal of Heat and Mass Transfer; Ultrasonics Journal
2010	Journal of Vibration and Control
2007	Journal of Communications in Nonlinear Science and Numerical Simulation
2004	Israel Science Foundation, Israel
2003	Ultrasonics Journal
1994–1996	Journal of Engineering Physics and Thermopysics
1987–1994	Institute of Scientific and Technical Information of RAS, Russia

11. Positions in conferences

1. Member of the ICMTA2019 Technical Committee, Session Chair (Session 11 - Macromolecular Materials), Kyoto, Japan, 2019.
2. Session Chair at the 4th International Conference on Applied Mathematics, Modeling and Computer Simulations (AMMCS 2017), Canada, Waterloo, August 20-25, 2017 (Section CS-ENV on Mathematical Modeling in Environmental Sciences and Models for Complex Media, 24.08.17).
3. Session Chair at the 17th International Conference on Mechanical Sciences and Engineering, Zurich, July 29-30, 2015 (Session 6, 29.07.15).
4. Invited Lecturer at the International Conference on Vibration, Structural Engineering and Measurement. Shanghai, China, 2011.
5. Member of the Conference Section Program Committee. Rheophysics and Thermophysics of Non-Equilibrium Systems - International School-Seminar. Minsk, 1991.

6. Member of the Organizing Committee, Scientific Secretary, 11th Rheological Symposium, Voronezh, 1981.

12. Membership in professional/scientific societies

Since 2012	Full Member of the American Acoustic Society, USA
2006-2012	Associate Member of the American Acoustic Society, USA
1992–2004	Member of CIS Rheological Society