

PUBLICATIONS

1. Sergei Abramovich, Arcadii Z. Grinshpan, and David L. Milligan, "Teaching Mathematics through Action Learning during the Covid-19 pandemic." *IMVI: Open Mathematical Education Notes* 11 (2021): 1-18.
2. Arcadii Z. Grinshpan, "Formulas and inequalities for some special functions of a complex variable," Chapter 7 in: *Advancements in Complex Analysis - From Theory to Practice*, Eds. D. Breaz and M. Rassias. Springer, 2020, 299-318; https://link.springer.com/chapter/10.1007/978-3-030-40120-7_7 .
3. Sergei Abramovich, Arcadii Z. Grinshpan, and David L. Milligan, "Teaching Mathematics through Concept Motivation and Action Learning." *Education Research International*, Research Article (13 pages), Article ID 3745406, Volume 2019 (2019); <https://doi.org/10.1155/2019/3745406> .
4. Arcadii Z. Grinshpan, "An inequality for multiple convolutions with respect to Dirichlet probability measure." *Adv. in Appl. Math.* 82:1 (2017): 102-119; <http://dx.doi.org/10.1016/j.aam.2016.08.001>.
5. G. Fox, S. Campbell, A. Grinshpan, X. Xu, J. Holcomb, C. Beneteau, J. Lewis, K. Ramachandran, "Implementing Projects in Calculus on a Large Scale at the University of South Florida." *Journal of STEM Education*. 18:3 (2017): 30-38; <https://www.jstem.org/jstem/index.php/JSTEM/article/view/2104/1868> .
6. Sergei Abramovich, Jonathan Burns, Scott Campbell, and Arcadii Z. Grinshpan, "STEM Education: Action learning in primary, secondary, and post-secondary mathematics." *IMVI: Open Mathematical Education Notes* 6 (2016): 65-106.
7. Arcadii Z. Grinshpan, "Weighted convolutions associated with probability functions and Bernstein polynomials." *Integral Transforms Spec. Funct.* 26:12 (2015): 985-999; <http://dx.doi.org/10.1080/10652469.2015.1075987>.
8. Arcadii Z. Grinshpan, "Generalized hypergeometric functions: product identities and weighted norm inequalities." *The Ramanujan Journal* 31:1-2 (2013): 53-66; DOI: 10.1007/s11139-013-9487-x.
9. Arcadii Z. Grinshpan, "Weighted norm inequalities for convolutions, differential operators, and generalized hypergeometric functions." *Integral Equations Operator Theory* 75:2 (2013): 165-185; DOI:10.1007/s00020-012-2013-5.
10. Arcadii Z. Grinshpan, "Volterra convolution equations: solution - kernel connection." *Integral Transforms Spec. Funct.* 23:4 (2012): 263-275; DOI:10.1080/10652469.2011.575072.

11. Sergei Abramovich and Arcadii Z. Grinshpan, \Bridging K-12 and university mathematics: building the staircase from the top." *IMVI: Open Mathematical Education Notes 2* (2012): 1-21.
12. Arcadii Z. Grinshpan, \Weighted inequalities and negative binomials." *Adv. in Appl. Math.* 45:4 (2010): 564-606; <http://dx.doi.org/10.1016/j.aam.2010.04.004>.
13. Arcadii Z. Grinshpan, \A family of integral equations with restricted solutions." *Integral Transforms Spec. Funct.* 20:10 (2009): 723-735; DOI:10.1080/10652460902781612.
14. Arcadii Z. Grinshpan, \Inequalities for classical orthogonal polynomials." *AJSE - Mathematics* 1:1 (2009): 83-94.
15. Sergei Abramovich and Arcadii Z. Grinshpan, \Teaching mathematics to non-mathematics majors through applications." *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies* 18:5 (2008): 411-428; DOI:10.1080/10511970601182772.
16. Arcadii Z. Grinshpan, \Weighted integral and integro-differential inequalities." *Adv. in Appl. Math.* 41:2 (2008): 227-246; <http://dx.doi.org/10.1016/j.aam.2007.09.002>.
17. Arcadii Z. Grinshpan, \An integral recursive inequality and applications." *The Ramanujan Journal* 15:2 (2008): 187-196; DOI: 10.1007/s11139-007-9071-3.
18. Arcadii Z. Grinshpan, \Inequalities for formal power series and entire functions." *J. Math. Anal. Appl.* 338:2 (2008): 1418-1430; <http://dx.doi.org/10.1016/j.jmaa.2007.06.038>.
19. Arcadii Z. Grinshpan, \Weighted norm inequalities for analytic functions." *J. Math. Anal. Appl.* 327:2 (2007): 1095-1104; <http://dx.doi.org/10.1016/j.jmaa.2006.05.013>.
20. Horst Alzer and Arcadii Z. Grinshpan, \Inequalities for the gamma and q -gamma functions." *J. Approx. Theory* 144:1 (2007): 67-83; <http://dx.doi.org/10.1016/j.jat.2006.04.008>.
21. Arcadii Z. Grinshpan and Mourad E. H. Ismail, \Completely monotonic functions involving the gamma and q -gamma functions." *Proc. Amer. Math. Soc.* 134:4 (2006): 1153-1160.
22. Arcadii Z. Grinshpan, \Integral inequalities for some special functions." *J. Math. Anal. Appl.* 314:2 (2006): 724-735; <http://dx.doi.org/10.1016/j.jmaa.2005.04.026>.
23. Arcadii Z. Grinshpan and Anatolii Grinshpan, \A note on de Branges' weights." *Proc. Amer. Math. Soc.* 133:9 (2005): 2605-2608.
24. Arcadii Z. Grinshpan, \General inequalities, consequences and applications." *Adv. in Appl. Math.* 34:1 (2005): 71-100; <http://dx.doi.org/10.1016/j.aam.2004.05.001>.

37. Arcadii Z. Grinshpan, \A. W. Goodman: Research mathematician and educator."

49. A. Z. Grinshpan, "Exponentiation method for univalent functions,"
in: *Theory of Functions and Approximations*, Part 2, Ed. S. M. Nikolskii. Saratov Univ.,

60. A. Z. Grinshpan, "Coefficients of powers of univalent functions." *Sibirsk. Mat. Zh.* 22:4 (1981): 88-93 (Russian); English transl. *Siberian Math. J.* 22:4 (1981): 551-554; DOI:10.1007/BF00967759.
61. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "Determination of fuel injection conditions in diesel engines on the basis of some known mixture formation parameters." *Trudy CNITA 75* (1980): 3-11 (Russian).
62. A. Z. Grinshpan, "On the Taylor coefficients of certain classes of univalent functions," in: *Metric Problems in Function Theory*, Ed. G. D. Suvorov. Naukova Dumka, Kiev, 1980, 28-32 (Russian).
63. A. Z. Grinshpan and Z. D. Kolomoitseva, "The method of areas for functions without common values." *Vestnik Leningrad. Univ.* 19:4 (1979): 31-36 (Russian, English summary); English transl. *Vestnik Leningrad Univ. Math.* 12:4 (1980): 272-279.
64. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "On development of a method of comparative evaluation of effectiveness of fuel-injection characteristics of diesel engines," in: *Some Methods of Increasing Fuel Economy and Decreasing Toxicity of Autotractor Engines*, Ed. S. G. Roganov. AzerPI, Baku, 1979, 4-5 (Russian). Details are given in *CNITA Technico-Scientific Reports, 1977-79* (Russian).
65. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "Injection characteristic determination on the basis of a predetermined rule of a fuel spray length variation." *Trudy CNITA 72* (1978): 11-16 (Russian).
66. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "On an inverse problem when calculating diesel fuel spray." *Trudy CNITA 72* (1978): 3-10 (Russian).
67. Yu. B. Sviridov, S. A. Romanov and A. Z. Grinshpan, "Mathematical model and calculation method for diesel fuel spray," in: *Processes of Functioning in Engines*. MADI, Moscow, 1978, 84-85 (Russian). Details are given in *CNITA Technico-Scientific Reports, 1975-78* (Russian).
68. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "Calculations of evaporated diesel fuel spray." *Trudy CNITA 69* (1977): 3-11 (Russian).
69. A. Z. Grinshpan, "The sharpening of the difference of the moduli of adjacent coefficients of univalent functions," in: *Some Problems in Modern Function Theory*, Ed. P. P. Belinskii.

71. A. Z. Grinshpan and S. A. Romanov, "Computer calculations of fuel droplet evaporation." *Trudy CNITA* 68 (1976): 11-16 (Russian).
72. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "Calculations of mixture formation in fuel spray during diesel injection by the "Minsk-32"." *Trudy CNITA* 67 (1975): 58-67 (Russian).
73. A. Z. Grinshpan, S. A. Romanov and Yu. B. Sviridov, "Analytic model of liquid fuel spray penetration in a stationary gas atmosphere." *Trudy CNITA* 64 (1975): 17-23 (Russian).
74. A. Z. Grinshpan and Z. D. Kolomoitseva, "Certain estimates in the class of functions that do not take on any pair of values w and \bar{w} ." *Vestnik Leningrad. Univ.* 19:4 (1973): 28-34 (Russian, English summary); English transl. *Vestnik Leningrad Univ. Math.* 6:4 (1979): 331-338.
75. A. Z. Grinshpan, "Logarithmic coefficients of functions of class S ." *Sibirsk. Mat. Zh.* 13 (1972): 1145-1157 (Russian); English transl. *Siberian Math. J.* 13 (1972): 793-801; DOI:10.1007/BF00968391.
76. A. Z. Grinshpan, "An application of the principle of areas to Bieberbach-Eilenberg functions." *Mat. Zametki* 11 (1972): 609-618 (Russian); English transl. *Math. Notes* 11 (1972): 371-377; DOI:10.1007/BF01093720.
77. A. Z. Grinshpan, "The coefficients of univalent functions that do not assume any pair of values w and \bar{w} ." *Mat. Zametki* 11 (1972): 3-14 (Russian); English transl. *Math. Notes* 11 (1972): 3-11; DOI:10.1007/BF01366908.
78. Two lemmas on convex polyhedra, in: *Convex Polyhedra with Regular Faces* by V. A. Zalgaller. *Zap. Nauchn. Sem. Leningrad. Otdel. Mat. Inst. Steklov (LOMI)* 2 (1967) (Russian): 70-72 (B. Belinskii, A. Grinshpan) and 78-79 (A. Grinshpan); English transl. *Seminars in Mathematics, V. A. Steklov Mathematical Institute, Leningrad*, Vol. 2, Consultants Bureau, New York, 1969.
79. V. A. Zalgaller (Leading author), B. Belinskii, A. Grinshpan, B. Ivanov, and K. Lavrentiev. "On regular faced polyhedra." *Vestnik Leningrad. Univ.* 1:1 (1965): 150-152 (Russian).

BOOK

Guest editor: Arcadii Grinshpan

The Goodman special issue. *Complex Variables: Theory and Application*

Volume 33: 1-4 (1997), i+309 pp., Gordon and Breach Science Publishers. ISSN 0278-1077

Selected Presentations

1. David L. Milligan, Arcadii Z. Grinshpan, and Sergei Abramovich, "Action Learning of Mathematics: The Case of Pandemic." Seminar series: Disciplined Inquiry in Education (SUNY Potsdam, 2021).
2. Sergei Abramovich, Shelly Arora, and Arcadii Z. Grinshpan, "Action learning breaks out mindset in mathematics." Indo-US global Expo Summit, Indus Foundation (Hyderabad, Telangana, India, 2017).
3. Arcadii Z. Grinshpan, "A multiple convolution inequality." SEAM XXXII (University of South Florida, Tampa, 2016).
4. Shelly Arora and Arcadii Z. Grinshpan, "Convolutions in Time Dependent Heat Conduction Equations." International Conference in Mathematical Analysis and Applications (IIT Roorkee, Roorkee, India, 2016).
5. Arcadii Z. Grinshpan, "Weighted norm inequalities for some special functions." International Symposium on Orthogonal Polynomials, Special Functions & Applications (NIST, Gaithersburg, Maryland, 2015).
6. Shelly Arora and Arcadii Z. Grinshpan, "Applications of Weighted Convolution Inequalities to PDEs." International Symposium on Orthogonal Polynomials, Special Functions & Applications (NIST, Gaithersburg, Maryland, 2015).
7. Arcadii Z. Grinshpan, "Extremal properties of weighted convolutions." Joint Mathematics Meeting, AMS and MAA (San Antonio, Texas, 2015).
8. Arcadii Grinshpan, "Interdisciplinary Mathematics in STEM Education: Undergraduate Retention and Research." NSF STEP Grantees Meeting: Identifying Best Practices (Washington, D.C., 2014).
9. Arcadii Grinshpan, "Mathematics Umbrella Model in STEM Education." NSF STEP Grantees Meeting: Identifying Best Practices (Washington, D.C., 2013).
10. Jonathan Burns and Arcadii Z. Grinshpan, "Multiparameter binomial sums." AMS Meeting (University of South Florida, Tampa, 2012).
11. Sergei Abramovich and Arcadii Z. Grinshpan, "Promoting STEM education by bridging K-12 and university mathematics." The New York State STEM Education Collaborative (Syracuse University, 2012).

12. Arcadii Z. Grinshpan, "Volterra convolution equations, power series modifications, and related inequalities." AMS Meeting (Georgia Southern University, Statesboro, 2011).
13. Arcadii Z. Grinshpan, "Convolutions and integro-differential inequalities." International Conference on Differential Equations and Dynamical Systems (University of South Florida, Tampa, 2010).
14. Arcadii Z. Grinshpan, "Weighted seminorm inequalities for power series." Analysis Seminar (Drexel University, Philadelphia, 2010).
15. Arcadii Z. Grinshpan, "A seminorm inequality and applications." SEAM XXV (University of South Florida, Tampa, 2009).
16. Sergei Abramovich and Arcadii Z. Grinshpan, "Teaching mathematics through applications to non-mathematics majors across disciplines: an apprenticeship approach." International Congress on Mathematical Education (Copenhagen, Denmark, 2004).
17. Arcadii Z. Grinshpan, "Integral inequalities and applications." Analysis Seminar (UC Berkeley, 2004).
18. Arcadii Z. Grinshpan, "New general inequalities and a positive kernel." Day of Function Theory in Germany and International Conference on Geometric Function Theory dedicated to Herbert Grötzsch (1902-1993) (Martin-Luther-University, Halle (Saale), Germany, 2002).
19. Arcadii Z. Grinshpan, "Inequalities generated by the gamma function." Analysis Seminar (UC Berkeley, 2001).
20. Arcadii Z. Grinshpan, "A mix of pure and applied ideas." MAA, Florida Section (University of South Florida, Tampa, 1999).
21. Arcadii Z. Grinshpan, "Quasiconformal extendibility and the Grunsky norm." Summer Meeting in Mathematical Analysis (Russian Academy of Sciences, Euler Mathematical Institute, St. Petersburg, Russia, 1999).
22. Arcadii Z. Grinshpan, "On one famous problem." MAA, Florida Section (Eckerd College, St. Petersburg, Florida, 1997).
23. Arcadii Z. Grinshpan, "Some estimates for bounded functions." Conference on Continued Fractions and Geometric Function Theory (Norwegian University of Science and Technology, Trondheim, Norway, 1997).

24. Arcadii Z. Grinshpan, "The Grunsky operator and coefficients of univalent functions."
Conference on Conformal and Quasiconformal Mappings
(Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, 1996).
25. Arcadii Z. Grinshpan and Mourad E. H. Ismail,
"On a sequence of polynomials related to the Bieberbach-Milin problem."
Joint Mathematics Meeting, AMS and MAA (Orlando, Florida, 1996).
26. Arcadii Z. Grinshpan, "Exponential convolutions and q -functions."
Conference on Special Functions, q -Series and Related Topics
(The Fields Institute for Research in Mathematical Sciences and University of Toronto,
Toronto, Ontario, Canada, 1995).
27. Arcadii Z. Grinshpan and Sergei V. Belyi, "The system theory approach to some engineering
problems." O -Highway and Power Plant Congress
(SAE International Engineering Society, Milwaukee, Wisconsin, 1993).
28. Arcadii Z. Grinshpan and Stanislav A. Romanov,
"Improvement of diesel engine performance through fuel injection equipment optimization."
O -Highway and Power Plant Congress
(SAE International Engineering Society, Milwaukee, Wisconsin, 1991).
29. A. Z. Grinshpan, "Univalent functions with logarithmic restrictions."
International Conference on Analytic Functions
(Institute of Mathematics, Jagiellonian University, Szczyrk, Poland, 1990).
30. A. Z. Grinshpan, "The exponentiation method and its applications."
Conference on Geometric Function Theory
(Mathematical Institute, Novosibirsk, Russia, 1988).
31. A. Z. Grinshpan, "On coefficients of some classes of univalent functions."
All-Union Conference on the Theory of Functions of a Complex Variable
(Physical Engineering Institute of Low Temperatures, Khar'kov, Ukraine, 1971).