

## List of Personal Papers

by A.A. Martynyuk

1. To the stability of transient motion on a given interval of time. *Prikl. Mekh.* **3**(5) (1967) 121–125. [Russian]
2. Statistical estimate of stability probability of motion on a given interval of time. *Dokl. Akad. Nauk USSR, Series A* (50) (1967) 443–445. [Russian]
3. On the stability in finite interval of systems with delay. *Dokl. Akad. Nauk USSR, Series A.* (8) (1969) 165–167. [Russian]
4. Estimate of transient processes in an engine with non-linear elements. *Theory of Mechanisms and Engines* (4) (1969) 338–341. [Russian]
5. About the stability of approximate solutions of nonlinear systems. *Prikl. Mekh.* **5**(12) (1969) 39–46. [Russian]
6. To the estimates of N.G. Chetaev of approximate integration. *Dokl. Akad. Nauk USSR, Series A.* (4) (1969) 338–341. [Russian]
7. On construction of solutions of a dynamical system in the domain of asymptotic stability. *Dokl. Akad. Nauk USSR. Series A.* (11) (1969) 1014–1018.
8. About the stability under persistent perturbation which is bounded in the mean. *Mathematical Physics* (6) (1969) 126–131.
9. Stability of approximate solutions of nonlinear systems and some adjacent questions. In: *Proc. V Intern. Conference on Nonlin. Oscillations.* (Eds.: N.N. Bogoliubov and Yu.A. Mitropolskii), Naukova Dumka, Kiev, 1970, P. 333–340. [Russian]
10. On construction of solution of differential equation in the domain of asymptotic stability. *Ukr. Matem. Zhurnal* **22** (3) (1970) 403–412. [Russian]
11. Polynomial approximation of solution of a nonlinear equation. *Ukr. Matem. Zhurnal* **22**(4) (1970) 557–563. [Russian]
12. A principle of packet the power of input. *Dokl. Acad. Nauk USSR. Series A.*, No.10, (1970) 819–823. [Russian]
13. About a realization of a rapidly decreasing process of solution of ordinary differential equations and some applications. *Ukr. Matem. Zhurnal* **22**(6) (1970) 734–748. [Russian]
14. To one method of investigation of mechanical systems with distributed parameters. *Prikl. Mekh.* **6** (12) (1970) 97–103. [Russian]

15. Some questions of the theory of stability of approximate solution and differential approximation. *Mathematical Physics* **7** (1970) 129–139. [Russian]
16. On construction of integral matrices. *Dokl. Akad. Nauk USSR, Series A* (1) (1971) 26–31. [Russian]
17. Stability of systems with random parameters on finite interval and differential inequalities. *Dokl. Akad. Nauk USSR, Series A* (5) (1971) 462–465. [Russian]
18. On stability of motions describing a parametric expansion. *Dokl. Akad. Nauk USSR, Series A* (11) (1971) 980–983. [Russian]
19. About a test of stability of solutions to nonlinear differential equations. *Ukr. Matem. Zhurnal* **23**(2) (1971) 253–257. [Russian]
20. The averaging method and the comparison principle in the technical theory of motion stability. *Prikl. Mekh.* **7**(9) (1971) 64–69. [Russian]
21. To the problem of stability of analytical motions. *Ukr. Matem. Zhurnal* **23**(4) (1971) 536–542. [Russian]
22. On some questions of stability and integrating in mechanics. *Mathematical Physics* **9** (1971) 80–89. [Russian]
23. A theorem on instability in the bounded systems with delay. In: *Differential-Difference Equations*. Inst. of Mathematics, Kiev, 1971, P. 40–44. [Russian]
24. On the method of  $R$ -functions in the problems of stability and specialized formation. *Mathematical Physics* **11** (1972) 69–82. [Russian]
25. Inequalities of stability of the systems unsolved with respect to highest derivative. *Dokl. Akad. Nauk USSR, Series A* (2) (1972) 130–134. [Russian]
26. On an iterated formula of constructing Liapunov functions. *Ukr. Matem. Zhurnal* **24**(2) (1972) 255–260. [Russian]
27. About technical stability with respect to a part of variables. *Prikl. Mekh.* **8**(2) (1972) 87–91. [Russian]
28. On technical stability of complex systems. *Cybernetics and Comput. Techn.*, No.15, (1972) 58–64. [Russian]
29. On stability of many-dimensional system. In: *Analytical and Qualitative Methods of the Theory of Differential Equations*. Inst. Mathem. AN USSR, Kiev, 1972, P. 158–174. [Russian]

30. About a realization of A.M. Liapunov's method of integrating linear equations. *Dokl. Akad. Nauk USSR, Series A* (4) (1972) 329–334. [Russian]
31. On construction of Liapunov's functions. *Dokl. Akad. Nauk USSR, Series A*, No.7, (1972) 623–626. [Russian]
32. On instability of equilibrium state of many-dimensional system which consists of "neutral" unstable subsystems. *Prikl. Mekh.* **8**(6) (1972) 77–82. [Russian]
33. A theorem of Liapunov type stability of many-dimensional system. *Ukr. Matem. Zhurnal* **24**(4) (1972) 532–537. [Russian]
34. About approximation of solutions of linear systems in Banach space. *Diff. Eqns.* **8**(11) (1972) 1988–1999. [Russian]
35. The stability of a multidimensional system. In: *Analytic and Qualitative Methods of the Theory of Differential Equations*. Inst. Math. Akad. Nauk Ukr. SSR, Kiev, 1972, P. 158–174. [Russian]
36. The averaging method in the stability theory. *Zag. Drgan. Nielin.* (14) (1973) 71–79. [Russian]
37. The averaging method in the theory of stability of motion. *Nonlinear Vibration Problems*. In: *Proc. Sixth Internat. Conf. Nonlinear Oscillations, Poznań, 1972, Part I*. PWN–Polish Sci. Publ., Warsaw, 1973, Vol.14, P. 71–79. [Russian]
38. Stability of coupled systems of nonlinear differential equations with delayed argument. *Soviet Automat. Control* **6** (1973) 10–15. [Russian]
39. The finite stability of a motion on an infinite time interval. *Mathematical Physics* **13** (1973) 55–59. [Russian]
40. Stability on a finite interval under constantly acting perturbations. *Dokl. Akad. Nauk Ukr. SSR, Series A* (1973) 920–922. [Ukrainian]
41. The stability of a standard system with constantly acting perturbations. *Dokl. Akad. Nauk Ukr. SSR, Series A* (1973) 406–408. [Ukrainian]
42. The stability of a standard system under constantly acting perturbations. *Mathematical Physics* **16** (1974) 35–39. [Russian]
43. A study of the stability of composite systems that are composed of neutrally stable subsystems. *Dokl. Akad. Nauk Ukr. SSR, Series A* (10) (1974) 125–128.
44. The stability of systems with perturbations that evolve. *Dokl. Akad. Nauk Ukr. SSR, Series A*, No.7, (1975) 611–614. [Ukrainian]

45. A theorem on the stability of a nonlinear system with a singular linear approximation. *Dokl. Akad. Nauk Ukr. SSR, Series A* (5) (1975) 409–411. [Ukrainian]
46. Integro-differential inequalities in the theory of the stability of motion. *Dokl. Akad. Nauk Ukr. SSR, Series A* (6) (1976) 529–532. [Russian]
47. A qualitative and numerical analytic study of stability of motion. *Prikl. Mekh.* **13**(10) (1977) 87–93. [Russian]
48. Technical stabilization of controlled motions. *Mathematical Physics* (24) (1978) 22–27. [Russian]
49. A theorem on the averaging principle in nonlinear mechanics. *Prikl. Mekh.* **14**(10) (1978) 129–132. [Russian]
50. A theorem of the type of first averaging Bogoljubov theorem. *Dokl. Akad. Nauk SSSR* **241**(2) (1978) 279–281. [Russian]
51. Development of the method of Liapunov functions in the theory of motion stability of complex systems. *Prikl. Mekh.* **15**(10) (1979) 3–23. [Russian]
52. The Ljapunov–Čaplygin comparison principle for standard systems. *Mathematical Physics* (25) (1979) 49–53. [Russian]
53. The averaging principle in nonlinear mechanics. *Prikl. Mekh.* **15**(8) (1979) 80–86. [Russian]
54. The Čaplygin-Ljapunov comparison principle in nonlinear mechanics. *Teor. Primen. Meh.* (5) (1979) 85–90. [Russian]
55. Generalization of the second theorem of the averaging Bogoljubov’s principle. *Dokl. Akad. Nauk SSSR* **249**(1) (1979) 46–48. [Russian]
56. Stability of motion in the neutral case with increasing perturbations. In: *Asymptotic methods in the theory of nonlinear oscillations*. (Proc. All-Union Conf. Asymptotic Methods in Nonlinear Mech., Katsiveli, 1977). Naukova Dumka, Kiev, 1979, P. 86–92. [Russian]
57. The principle of comparison and averaging in systems with fast and slow motions. *Dokl. Akad. Nauk SSSR* **253**(6) (1980) 1307–1310. [Russian]
58. Method of integral inequalities in the theory of stability of motion. *Soviet Appl. Mech.* **16**(4) (1980) 267–281.
59. Stability and instability of systems of processes with respect to two multi-valent measures. *Soviet Appl. Mech.* **17**(2) (1981) 184–189.
60. Practical stability and stabilization of control processes. *Soviet Appl. Mech.* **17**(10) (1981) 859–873.

61. Stability of motions in nonlinear mechanics. *Dokl. Akad. Nauk SSSR* **264**(5) (1982) 1073–1077. [Russian]
62. The averaging method and optimal stabilization of motions of nonlinear systems. *Dokl. Akad. Nauk SSSR* **263**(5) (1982) 1054–1057. [Russian]
63. The comparison method in a problem on the continuous dependence on the parameter. *Diff. Uravn.* **18**(12) (1982) 2188–2190. [Russian]
64. The Lyapunov matrix-function. *Nonlin. Anal.* **8**(10) (1984) 1223–1226.
65. Some stability problems of nonintegrable dynamical systems (A review). *Soviet Appl. Mech.* **20**(6) (1984) 497–511.
66. The inclusion principle for standard systems. *Dokl. Akad. Nauk SSSR* **276**(1) (1984) 34–37. [Russian]
67. Method of averaging and optimal stabilization of motion of large scale systems. In: *Real Time Control of Large Scale Systems*. Univ. of Patras, Patras, 1984, P. 228–237.
68. Methods and problems of the practical stability of motion theory. *Zag. Drgan. Nielin.* (22) (1984) 9–46.
69. Liapunov's function method in the problem on practical stability. *Zag. Drgan. Nielin.* (22) (1984) 47–68.
70. Method of comparison in the theory of practical stability. *Zag. Drgan. Nielin.* (22) (1984) 69–89.
71. On the Lyapunov matrix-function and stability of motions. *Dokl. Akad. Nauk SSSR* **280**(5) (1985) 1062–1066. [Russian]
72. On application of the Lyapunov matrix-functions in the theory of stability. *Nonlin. Anal.* **9**(12) (1985) 1495–1501.
73. The Lyapunov matrix function and stability of hybrid systems. *Prikl. Mekh.* **21**(4) (1985) 89–96. [Russian]
74. Scalar comparison equations in the theory of motion stability. *Prikl. Mekh.* **21**(12) (1985) 3–21. [Russian]
75. On practical stability and optimal stabilization of controlled motion. In: *Mathematical Control Theory*. Banach Center Publ., PWN, Warsaw, Vol.14, 1985, P. 383–400.
76. To the theory of stability of Hamiltonian systems. *Teor. Primen. Meh.* (11) (1985) 101–108.
77. Liapunov matrix-function and stability theory. In: *Proc. IMACS-IFAC Symp.* IDN, Villeneuve d'Ascq, 1986, P. 261–265.

78. Uniform asymptotic stability of a singularly perturbed system based on the Lyapunov matrix-function. *Dokl. Akad. Nauk SSSR* **287**(4) (1986) 786–789. [Russian]
79. Expansion of the phase space of dynamical systems and the problem of stability. *Prikl. Mekh.* **22**(12) (1986) 10–25. [Russian]
80. The Lyapunov matrix-function and stability of hybrid systems. *Nonlin. Anal.* **10**(12) (1986) 1449–1457.
81. The development of direct Lyapunov method for singularly-perturbed systems on the basis of matrix-functions. In: *Proceedings of the Eleventh International Conference on Nonlinear Oscillations*. Janos Bolyai Math. Soc., Budapest, 1987, P. 149–156.
82. Stochastic matrix-valued Lyapunov function and its application. *Stochastic Anal. Appl.* **5**(4) (1987) 395–404.
83. Extension of state space of dynamical systems and the problem of stability. In: *Differential Equations: Qualitative Theory* North-Holland, Amsterdam-New York, 1987, P. 711–750.
84. Uniform asymptotic stability of a singularly perturbed system via the Lyapunov matrix-function. *Nonlin. Anal.* **11**(1) (1987) 1–4.
85. A stochastic matrix Lyapunov function and its application. *Dokl. Akad. Nauk SSSR* **299**(1) (1988) 46–49. [Russian]
86. Practical stability conditions for hybrid systems. In: *Proc. 12th IMACS Congress*, Vol.1, 1988, P. 344–347.
87. Application of Lyapunov matrix-functions in studying the motion of systems with lumped and distributed parameters. *Teor. Primen. Mekh.* **14** (1988) 73–84. [Russian]
88. On matrix Lyapunov function for stochastic dynamical systems. In: *Computing and Computers for Control Systems* (Paris, 1988), Baltzer, IMACS Ann. Comput. Appl. Math., Basel, Vol.4, 1998, P. 211–214.
89. The Lyapunov hierarchical matrix function and stability under structural perturbations. *Dokl. Akad. Nauk SSSR* **305**(1) (1989) 41–44. [Russian]
90. Stability of stochastic singularly perturbed systems. *Dokl. Akad. Nauk USSR, Series A* (7) (1989) 55–57. [Russian]
91. Practical stability of hybrid systems. *Prikl. Mekh.* **25**(2) (1989) 101–107. [Russian]
92. Hierarchical matrix Lyapunov function. *Differential and Integral Equations* **2**(4) (1989) 411–417.

93. On the averaging method for multifrequency systems. *Dokl. Akad. Nauk USSR, Series A* (3) (1990) 60–61. [Russian]
94. Analysis of stability problems via matrix Lyapunov functions. *J. Appl. Math. Stochastic Anal.* **3**(4) (1990) 209–226.
95. Boundedness of solutions of nonlinear systems with small perturbations. *Dokl. Akad. Nauk SSSR* **317**(5) (1991) 1055–1058. [Russian]
96. Analysis of the stability of nonlinear systems on the basis of Lyapunov matrix functions (A survey). *Prikl. Mekh.* **27**(8) (1991) 3–15. [Russian]
97. A new direction in the method of matrix Lyapunov functions. *Dokl. Akad. Nauk SSSR* **319**(3) (1991) 554–557. [Russian]
98. A theorem on polystability. *Dokl. Akad. Nauk SSSR* **318**(4) (1991) 808–811. [Russian]
99. A theorem on instability under small perturbation. *Dokl. Akad. Nauk of Ukraine* (6) (1992) 14–16.
100. Stability theorem for nonautonomous equations with small perturbations. *Dokl. Akad. Nauk of Ukraine* (4) (1992) 7–10.
101. On the polystability of motion with respect to some variables. *Dokl. Akad. Nauk* **324**(1) (1992) 39–41. [Russian]
102. Stability analysis with respect to two measures of systems under structural perturbations. *Differential Equations Dynam. Systems* **1**(3) (1993) 257–265.
103. Exponential stability with respect to some variables. *Dokl. Akad. Nauk* **331**(1) (1993) 17–19. [Russian]
104. On the matrix comparison method in the theory of motion stability. *Prikl. Mekh.* **29**(10) (1993) 116–122. [Russian]
105. Exponential polystability of separating motions. *Dokl. Akad. Nauk* **336**(4) (1994) 446–447. [Russian]
106. On exponential polystability of motion. *Teor. Prikl. Mekh.* **20** (1994) 143–151. [Russian]
107. On some applications of the contraction principle. *Dokl. Akad. Nauk* **339**(3) (1994) 304–306. [Russian]
108. Lyapunov matrix functions and stability with respect to measures of impulsive systems. *Dokl. Akad. Nauk* **338**(6) (1994) 728–730. [Russian]
109. On a generalization of Richardson’s model of the arms race. *Dokl. Akad. Nauk* **339**(1) (1994) 15–17. [Russian]

110. Qualitative analysis of nonlinear systems by the method of matrix Lyapunov functions. Second Geoffrey J. Butler Memorial Conference in Differential Equations and Mathematical Biology (Edmonton, AB, 1992). *Rocky Mountain J. Math.* **25**(1) (1995) 397–415.
111. Aggregation forms in the investigation of the stability of motion of large-scale systems. Stability criteria (A survey). *Prikl. Mekh.* **31**(9) (1995) 3–14. [Russian]
112. Exponential polystability of separating motions. *Ukr. Matem. Zhurnal* **48**(5) (1996) 642–649. [Russian]
113. Aggregation forms of nonlinear systems. Domains of asymptotic stability. (A survey). *Prikl. Mekh.* **32**(4) (1996) 3–19. [Russian]
114. A contraction principle. In *Advances in Nonlinear Dynamics*. (Eds.: S. Sivasundaram and A.A. Martynyuk). Gordon and Breach Science Publishers, Amsterdam, 1997, P. 99–105.
115. On an application of limit equations. *Dokl. Akad. Nauk* **353**(1) (1997) 20–22.
116. On the boundedness with respect to two measures of solutions of replicator equations. *Dokl. Akad. Nauk* **353** (2) (1997) 155–157. [Russian].
117. On the stability of discrete systems with structural perturbations. *Prikl. Mekh.* **33** (4) (1997) 82–88. [Russian]
118. On integral and Lipschitz stability of motion. *Ukr. Matem. Zhurnal* **49** (1) (1997) 77–83. [Russian]
119. On an idea by G.E. Pukhov. *Engineering Simulation* **14** (4) (1997) 521–525.
120. A survey of some classical and modern developments of stability theory. *Nonlin. Anal.* **40** (2000) 483–496.
121. On certain results of development of theories of motion: classical and modern. *Prikl. Mekh.* **37** (10) (2001) 44–60.
122. Stability analysis of continuous systems under structural perturbations. *Prikl. Mekh.* **38** (7) (2002) 25–52. [Russian]
123. On the method of Liapunov matrix functions for the equations in Banach space. *Dokl. Nats. Acad. Nauk Ukraine* (7) (2002) 50–54. [Russian]
124. Matrix Liapunov functions and stability analysis of dynamical systems. In: *Advances in Stability Theory at the End of 20th Century*. (Ed.: A.A. Martynyuk). Taylor and Francis, London and New York, 2003, P. 135–151.



125. On stability of motion of discontinuous dynamical systems. *Dokl. Akad. Nauk* **397** (3) (2004) 308–312. [Russian]
126. Matrix Liapunov's functions method and stability analysis of continuous systems. *CUBO. A Mathematical Journal* **6** (4) (2004) 209–257.
127. Direct Liapunov's matrix functions method and overlapping decomposition of large scale systems. *Dynamics of Continuous, Discrete and Impulsive Systems* **11** (2004) 205–217.
128. Stability analysis by comparison technique. *Nonlin. Anal.* **62** (2005) 629–641.
129. Stability of dynamical systems in metric space. *Nonlinear Dynamics and Systems Theory* **5** (2) (2005) 157–168.
130. To the theory of direct Liapunov's method. *Dokl. Acad. Nauk* **406** (3) (2006) 309–312. [Russian]
131. On stability of set trajectories of nonlinear dynamics. *Dokl. Acad. Nauk* **414** (3) (2007) 299–303. [Russian]
132. On polydynamics of nonlinear systems on time scales. *Dokl. Acad. Nauk* **414** (4) (2007) 455–458. [Russian]
133. Stability analysis of large-scale functional differential systems. *Ukr. Math. Journ.* **59** (3) (2007) 87–98. [Russian]
134. General problem on polydynamics on time scales *Dokl. Nats. Acad. Nauk Ukr.* (1) (2008) 7–13. [Russian]
135. On comparison principle for matrix differential equations. *Dokl. Nats. Acad. Nauk Ukr.* (12) (2008) 28–33. [Russian]
136. On exponential stability dynamic systems on time scales. *Dokl. Acad. Nauk* **421** (4) (2008) 312–317. [Russian]
137. An exploration of polydynamics on nonlinear equations on time scales. *ICIC Express Letters* **2** (2) (2008) 155–160.
138. Novel trends in the theory of direct Liapunov method. In: *Advances in Nonlinear Analysis: Theory, Methods and Applications* (Eds.: S. Sivasundaram et al.). Cambridge Scientific Publishers, Cambridge, 2008, 221–232.
139. Criterion of uniform stability of nonlinear systems in the hole. *Dokl. Nats. Acad. Nauk Ukr.* (1) (2009) 35–39. [Russian]
140. Comparison principle for a set differential equation with robust causal operator. *Dokl. Acad. Nauk* **427** (6) (2009) 750–753. [Russian]

141. On instability solutions of dynamic equations on time scales. Dokl. Nats. Acad. Nauk of Ukraine (10) (2009) 21–26. [Russian]
142. On direct Liapunov method for equations with fractional derivative. Dokl. Nats. Acad. Nauk Ukr. (3) (2010) 33–34. [Russian]
143. On a mathematical model of world dynamics and sustainable development. Dokl. Nats. Acad. Nauk Ukr. (7) (2010) 16–21. [Russian]
144. Exponential stability on time scales under structural perturbations. Dokl. Nats. Acad. Nauk of Ukraine (9) (2010) 24–29. [Russian]
145. On instability of solutions of dynamic equations on time scales. Dokl. Nats. Acad. Nauk of Ukraine (10) (2010) 21–26. [Russian]
146. On stability of the set impulsive equations. Dokl. Acad. Nauk **436** (5) (2011).
147. Criterion of stability of nonlinear monotone systems and its applications. (Survey). Prikl. Mekh. **47** (5) (2011) 3–67.
148. Stability in the models of real world phenomenon. Nonlinear Dynamics and Systems Theory (Survey) **11** (1) (2011) 7–52.
149. On stabilization of delay systems by impulsive perturbation. Dokl. Nats. Acad. Nauk of Ukraine (9) (2012) 62–65. [Russian]
150. Stability Analysis via Matrix Functions Method. Part I, 262 p., Part II, 130 p. Section Statics and Mathematics, 2013. [www.bookboon.com](http://www.bookboon.com)
151. Stability of motion under interval initial data. Dokl. Nats. Acad. Nauk of Ukraine (1) (2013) 24–29. [Russian]
152. On instability of motion under interval initial conditions. Dokl. Nats. Acad. Nauk of Ukraine (11) (2013) 55–60. [Russian]
153. Direct Lyapunov method on time scales. Communications in Applied Analysis **17** (3&4) (2013) 483–502.
154. On stability of impulsive systems with respect to two measures. Nonlinear Oscillations, **16** (4) (2013) 538–556.
155. On stability of trajectories of set difference equations. Dokl. Nats. Acad. Nauk of Ukraine (5) (2014) 65–69.
156. Novel Bounds for Solutions of Nonlinear Differential Equations. Applied Mathematics (6) 182–194. Published Online January 2015 in SciRes. <http://www.scirp.org/journal/am> <http://dx.doi.org/10.4236/am.2015.61018>
157. On stability with respect to two measures of fractional differential equations. Nonlinear Oscillations **18** (2) (2015) 238–244.

158. An approach to estimation of solutions of quasi-linear systems. Dokl. Nats. Acad. of Sciences of Ukraine (2) (2015) 19–24.
159. Elements of the theory of stability of hybrid systems (Review). Int. Appl. Mech. **51** (3) (2015) 243–302.
160. Analysis of a set of trajectories of generalized standard systems: Averaging technique. Nonlinear Dynamics and Systems Theory **17** (1) (2017) 29–41.
161. Constructive estimates of Lyapunov V-function for perturbed equations of motion. Int. Appl. Mech. **53** (5) (2017) 588–594.
162. Deviation of a set of trajectories from the equilibrium state. Dokl. Nats. Acad. of Sciences of Ukraine (10) (2017) 10–15. [Russian]
163. Invariance of solutions of a family of regularized equations. Dokl. Nats. Acad. of Sciences of Ukraine (12) (2017) 3–7. [Russian]
164. Fractional-like Hukuhara derivative and its properties. Dokl. Nats. Acad. of Sciences of Ukraine (4) (2019) 10–16. [Russian]
165. On application of mixed Minkowski volumes in qualitative theory of set differential equations. Global and Stochastic Analysis **5** (1) (2018) 39–44.
166. Conditions for Hyers-Ulam-Rassias Stability of Families of Equations. Dokl. Nats. Acad. of Sciences of Ukraine (8) (2017) 11–16. [Russian]
167. On the principle of comparison and estimates of Lyapunov functions for nonlinear systems. Dokl. Nats. Acad. of Sciences of Ukraine (9) (2018) 3–11. [Russian]
168. Dynamic analysis of the set of trajectories of a family of equations of motion based on Minkowski mixed volumes. Int. Appl. Mech. **54** (4) (2018) 418–430.
169. On the estimate of the Lyapunov function on solutions of quasilinear fractional-like systems. Dokl. Nats. Acad. of Sciences of Ukraine (11) (2020) 3–8. [Russian]
170. Direct method of A.M. Lyapunov based on matrix auxiliary functions: 40 years of development (review). Int. Appl. Mech. **56** (3) (2020) 3–75. [Russian]

Professor A.A. Martynyuk is also a co-author of 274 papers which were published in many International Journals and Proceedings of the Conferences.