

## List of Works of N.G. Chetaev

1924

1. Difraktsiia sveta v neprozrachnykh sredakh (Diffraction of light in nontransparent media). *Izv. Fiz. Mat. Obshch. Kazan. Univ.* Vol. 24, Ser. 2, No. 2, 1924, pp. 8-18.

1925

2. O zadache printsipa Giuigensa (On a problem of Huygens' principle). *Izv. Fiz. Mat. Obshch. Kazan. Univ.* Ser. 2, 1925, pp. 20-30.

1926

3. Ob odnoi zadache Steklova (On a problem of Steklov). *Dokl. Akad. Nauk SSSR* November, 1926, pp. 209-210.
4. Ob ustoychivyykh figurakh ravnovesiia nekotoroi odnorodnoi massy vrashchaliushcheisia zhidkosti pod deistviem sil luchistogo szhatiia k tsentru tiazhesti (On stable equilibrium figures of a certain homogeneous mass of a rotating liquid under the action of radial compression forces towards the center of gravity). *Izv. Fiz. Mat. Obshch. Kazan. Univ.* Vol. 1, No. 3, 1926, pp. 49-94.

1927

5. Sur les équations de Poincaré. *C.R. Acad. Sci. Paris* Vol. 185, 1927, pp. 1577-1578.

1928

6. Sur les equations de Poincaré. *Dokl. Akad. Nauk SSSR* No. 7, 1928, pp. 103-104.
7. Sur la stabilité à la Poisson. *C.R. Acad. Sci. Paris* Vol. 187, 1928, pp. 637-638.

1929

8. Ob ustoychivosti v smysle Puassona (On stability in the sense of Poisson). *Uch. Zap. Kazan. Gos. Univ.* Vol. 89, Book 2, 1929, pp. 199-201.
9. Ueber die von den Ellipsoiden abgeleiteten Gleichgewichtsfiguren. *Izv. Fiz. Mat. Obshch. Kazan. Univ.* Ser. 3, Vol. 4, No. 1, 1929, pp. 1-36.

## 1930

10. O bokovoi ustoichivosti aeroplana (On the lateral stability of an airplane). *Uch. Zap. Kazan. Gos. Univ.* Vol. 90, Book 6, 1930, pp. 957-998.
11. Sur la réciproque du théorème de Lagrange. *C.R. Acad. Sci. Paris* Vol. 190, 1930, pp. 360-362.

## 1931

12. Ob ustoichivyykh traektoriyakh dinamiki (On stable trajectories in dynamics). *Uch. Zap. Kazan. Gos. Univ.* Vol. 91, Book 4, matematika, No. 1, 1931, pp. 3-8.

## 1932-1933

13. O vychislenii kharakteristik Kronekera (On the calculation of the Kronecker characteristics). *Izv. Fiz. Mat. Obshch. Kazan. Univ.* Ser. 3, Vol. 8, 1932-1933, pp. 62-67.
14. O printsipe Gaussa (On Gauss' principle). *ibid*, pp. 68-71.

## 1934

15. Ob odnoi mysli Puankare (On an idea of Poincaré). *Sb. Nauchn. Trud. Kazansk. Aviats. Inst.* No. 2, 1934, pp. 18-20.
16. Odná teorema o neustoichivosti (A theorem on instability). *Dokl. Akad. Nauk SSSR* Vol. 1, No. 9, 1934, pp. 529-531 (Summary in French).
17. K voprosu ob obrashchenii teoremy Lagranzha (On the converse problem of the Lagrange theorem). *Sb. Nauchn. Trud. Kazansk. Aviats. Inst.* No. 2, 1934, pp. 29-30.

## 1935

18. Ob odnoi mysli Puankare (On an idea of Poincaré). *Sb. Nauchn. Trud. Kazansk. Aviats. Inst.* No. 3, 1935, pp. 3-6.

## 1936

19. Ob ustoichivyykh traektoriyakh dinamiki (On stable trajectories in dynamics). *Sb. Nauchn. Trud. Kazansk. Aviats. Inst.* No. 5, 1936, pp. 3-18.
20. Ustoichivost' i klassicheskie zakony (Stability and the classical laws). *Sb. Nauchn. Trud. Kazansk. Aviats. Inst.* No. 6, 1936, pp. 3-5.
21. O prilozheniyakh kharakteristik Kronecker'a v problemakh ustoichivosti dvizheniya (On the application of the Kronecker characteristics

to the problems of stability of motion). An article from the book: *Trudy Vtorogo vsesoiuzn. matem. s'ezda, Leningrad 24-30 iunia 1934 t. 2. Sektsionnye doklady (Papers from the second All-Union Mathematical Congress, Leningrad, 24-30 June, 1934, Vol. 2. Section reports)*. Akad. Nauk SSSR, 1936, p. 224.

## 1938

22. Kharakteristiki Kronekera (The Kronecker characteristics). *Uch. Zap. Kazan. Gos. Univ.* Vol. 98, Book 9, matematika, No. 3, 1938, pp.1-41.
23. O neustoichivosti ravnovesiia, kogda silovaia funktsiia ne est' maksimum (On the instability of the equilibrium when the force function has no maximum). *ibid.*

## 1940

24. Ob odnoi mysli Puankare (On an idea of Poincaré). *Sb. Nauchn. Trud. Kazan. Aviats. Inst.* No. 10, 1940, pp. 3-4.

## 1941

25. Odno vidoizmenenie printsipa Gaussa (A modification of Gauss' principle). *PMM* Vol. 5, No. 1, 1941, pp. 11-12 (Summary in German).
26. Ob uravneniakh Puankare (On the Poincaré equations). *PMM* Vol. 5, No. 2, 1941, pp. 253-262 (Summary in English).

## 1943

27. O vyznuzhennykh dvizheniakh (On forced motions). *PMM* Vol. 7, No. 1, 1943, pp. 25-30.
28. O dostatochnykh usloviakh ustoichivosti vrashchatel'nogo dvizheniia snariada (On sufficient conditions for the stability of the rotational motions of a projectile). *PMM* Vol. 7, No. 2, 1943, pp. 81-96 (Summary in English).

## 1944

29. Ob ustoichivosti dvizheniia (On stability of motion). An article from the book: *Tezisy nauchnykh dokladov na sessii Otd. Tekhn. Nauk SSSR 29-30 noiabria 1944 (Abstracts of scientific reports given in the Section of Techn. Sci. of the Acad. of Sciences of the U.S.S.R., Session November 29 to 30, 1944)*. Moscow, 1944, p. 8.
30. Teorema o neustoichivosti dl'ia pravil'nykh sistem (A theorem on the instability of regular systems). *PMM* Vol. 8, No. 4, 1944, pp. 323-326. (Summary in English).

## 1945

31. *Mekhanika (Mechanics)*. An article in the book: *Sovetskaia tekhnika za dvadtsat' piat' let (Soviet technology during twenty five years)*. Akad. Nauk SSSR, 1945, pp. 7-31 (Jointly with others).
32. *Raboty russkikh uchenykh po mekhanike v Akademii Nauk (Works of Russian scientists in mechanics at the Academy of Sciences)*. *Izv. Akad. Nauk SSSR Otd. Tekhn. Nauk* Nos. 4-5, 1945, pp. 318-323 (Summary in English).
33. *Ob ustoichivosti dvizheniia (On the stability of motion)*. *Izv. Akad. Nauk SSSR Otd. Tekhn. Nauk* No. 6, 1945, pp. 482-490.
34. *Ob odnoi zadache Koshi (On a problem of Cauchy)*. *PMN* Vol. 9, No. 2, 1945, pp. 139-142 (Summary in English).
35. *O naimen'shem kharakteristichnom chisle (On the smallest characteristic number)*. *PMN* Vol. 9, No. 3, 1945, pp. 193-196. (Summary in English).
36. *Boris Grigor'evich Galerkin (Obituary)*. *Vestnik Akad. Nauk SSSR* Nos. 10-11, 1945, pp. 85-89.

## 1946

37. *Ustoichivost' dvizheniia (Stability of motion)*. Gos. Izdat. Tekhn. Teor. Lit., 1946, 204 pp.
38. *Ob ustoichivosti vrashchatel'nykh dvizhenii snariada (On stability of rotational motions of a projectile)*. *PMN* Vol. 10, No. 1, 1946, pp. 135-138 (Summary in English).
39. *K voprosu o vychislenii chastnykh reshenii dlia sistemy lineinykh differentsial'nykh uravnenii s postoiannymi koeffitsientami (On the problem of calculating particular solutions for a system of linear differential equations with constant coefficients)*. *PMN* Vol. 10, No. 2, 1946, pp. 291-294. (Summary in English).

## 1947

40. *Raboty russkikh uchenykh po mekhanike v Akademii nauk (Works of Russian scientists in mechanics at the Academy of Sciences)*. An article from the book: *Iubileinaia sessiia Akademii nauk SSSR 15 i iunia - 3 i iulia 1945 t. 2 (Jubilee session of the Academy of Sciences of the U.S.S.R., June 15 to July 3, 1945, Vol. 2)*. Akad. Nauk SSSR 1947, pp. 498-506.

## 1948

41. Aleksandr Mikhailovich Liapunov (1857-1918). An article in the book: *Liudi russkoi nauki. Ocherki o vydaiushchikhsia detateliakh estestvoznaniia i tekhniki (Men of Russian Science. Sketches of outstanding scientists in natural science and technology)*. Vol. 1, Gos. Izdat. Tekhn. Teor. Lit., 1948, pp. 186-192. Portrait.
42. Kommentarii k glave 1 raboty "Obshchaia zadacha ob ustoichivosti dvizheniia". (A commentary on Chapter 1 of the work "General problem of stability of motion"). From the book: *A.M. Liapunov, Izbrannye trudy (Selected Works of A.M. Liapunov)*. Akad. Nauk SSSR, 1948, pp. 451-456.
43. O znake naimen'shego kharakteristicheskogo chisla (On the sign of the smallest characteristic number). *PMM* Vol. 12, No. 1, 1948, pp. 101-102.
44. O nekotorykh voprosakh ob ustoichivosti i neustoichivosti dlia nepravil'nykh sistem (On certain problems of stability and instability for irregular systems). *PMM* Vol. 12, No. 5, 1948, pp. 639-642.

## 1950

45. *Red: Tablitsy znachenii funktsii Besselia ot mnimogo argumenta (Editor: Tables of values for the Bessel functions of an imaginary argument)*. Akad. Nauk SSSR, 1950, XII, 404 pp. (jointly with I.M. Vinogradov).
46. Notes in the book: *A.M. Liapunov: Obshchaia zadacha ob ustoichivosti dvizheniia (A.M. Liapunov: General problem of stability of motion)*. Gos. Izdat. Tekhn. Teor. Lit., 1950, pp. 462-466.

## 1951

47. O vybore parametrov ustoichivoi mekhanicheskoi sistemy (On the choice of the parameters in a stable mechanical system). *PMM* Vol. 15, No. 3, 1951, pp. 371-372.

## 1952

48. O neustoichivosti ravnovesiia v nekotorykh sluchaiakh, kogda funktsiia sil ne est' maksimum (On instability of equilibrium in certain cases, when the force function has no maximum). *PMM* Vol. 16, No. 1, 1952, pp. 89-93.

## 1954

49. Ob ustoichivosti vrashcheniia tverdogo tela s odnoi nepodvizhnoi tochkoii v sluchae Lagranzha (On stability of rotation of a rigid body

with a fixed point in the case of Lagrange). *PMM* Vol. 18, No. 1, 1954, pp. 123-124.

50. Ob uravneniakh dvizheniia podobno-izmeniaemogo tela (On the equations of motion of a similarly changed body). *Uch. Zap. Kazan. Gos. Univ.* Vol. 114, Book 8. Jubilee Collection (1804-1954), 1954, pp. 5-8.
51. Zamechanie k stat'e: O neustoichivosti ravnovesiia v nekotorykh sluchaiakh, kogda funktsiia sil ne est' maksimum (Notes on the article: On instability of equilibrium in certain cases, when the force function has no maximum). (*PMM* Vol. 16, No. 1, 1952) *PMM* Vol. 18, No. 4, 1954, p. 512.

## 1955

52. *Ustoichivost' dvizheniia (Stability of motion)*. Second corrected edn, Gos. Izdat. Tekhn. Teor. Lit., 1955, 207 pp.
53. Ob odnom svoistve uravnenii Puankare (On a certain property of the Poincaré equations). *PMM* Vol. 19, No. 5, 1955, pp. 513-515.
54. Ob odnom svoistve uravnenii Puankare (On a certain property of the Poincaré equations). *Uch. Zap. Kazan. Gos. Univ.* Vol. 115, Book 10, 1955. Works of the Jubilee Session, pp. 21-23.

## 1956

55. O nekotorykh zadachakh ob ustoichivosti dvizheniia v mekhanike (On certain problems of stability of motion in mechanics). *PMM* Vol. 20, No. 3, 1956, pp. 309-314.

## 1957

56. Nekotorye voprosy o dvizhenii vibratsionnoi mel'nitsy (Certain problems on the motion of a vibrational mill). *Izv. Akad. Nauk SSSR Otd. Tekhn. Nauk* No. 3, 1957, pp. 49-56.
57. Ob ustoichivosti vrashchatel'nykh dvizhenii tverdogo tela, polost' kotorogo napolnena ideal'noi zhidkost'iu (On stability of rotational motions of a rigid body with a cavity filled with an ideal liquid). *PMM* Vol. 21, No. 2, 1957, pp. 157-168.
58. K voprosu ob otsenkakh priblizhennykh integrirovani (On the problem of estimates of approximate integrations). *PMM* Vol. 21, No. 3, 1957, pp. 419-421.

## 1958

59. O nekotorykh zadachakh ob ustoichivosti dvizheniia v mekhanike (On

- certain problems on stability of motion in mechanics). An article from the book: *Trudy Tret'ego Vsesoiuz. Matem. s'ezda, M., iiunia-iiulia 1956, t. 3 (Works of the third All-Union Mathematical Congress, Moscow, June-July, 1956, Vol. 3)*. Obzor. Dokl. Akad. Nauk SSSR, Moscow, 1958, pp. 507-512.
60. O giroskope v kardanovom podvese (On a gyroscope in the Cardan suspension). *PMM* Vol. 22, No. 3, 1958, pp. 379-381.
  61. O prodolzhenii optiko-mekhanicheskoi analogii (On the continuation of the optical-mechanical analogy). *PMM* Vol. 22, No. 4, 1958, pp. 487-489.
  62. *Red: Trudy Tret'ego Vsesoiuz. Matem. S'ezda: M., iiunia-iiulia, 1956, t. 3 (Editor: Works of the third All-Union Mathematical Congress, Moscow, June-July, 1956, Vol. 3)*. Obzor. Dokl. Akad. Nauk SSSR, Moscow, 1958, p. 596.
  63. O nekotorykh voprosakh, otnosiashchikhsia k zadache ob ustoichivosti neustanovivshikhsia dvizhenii (On certain questions referring to the problem of stability of nonstationary motions). *PMM* Vol. 24, No. 1, 1960, pp. 6-19.
  64. Ob ustoichivosti grubyykh sistem (On stability of rough systems). *PMM* Vol. 24, No. 1, 1960, pp. 20-22.
  65. Zadacha Kleina (The problem of Klein). *PMM* Vol. 24, No. 1, 1960, pp. 23-32.
  66. Zamechania o klassicheskoi gamil'tonovoi teorii (Remarks on the classical Hamiltonian theory). *PMM* Vol. 24, No. 1, 1960, pp. 33-34.
  67. O nekotorykh sviazakh s treniem (On certain constraints with friction). *PMM* Vol. 24, No. 1, 1960, pp. 35-38,

Translated by E.L.