

## I.M. Gelfand's Publications - extracted from Math Reviews

1. 1 845 645 Vinberg, . B.; Gelfand, I. M.; Gindikin, S. G.; et al. Fridrikh Izrailevich Karpelevich. (Russian) *Uspekhi Mat. Nauk* 56 (2001), no. 1(337), 147–152. 01A70
2. 1 816 859 Gelfand, Israel M.; Zakharevich, Ilya Webs, Lenard schemes, and the local geometry of bi-Hamiltonian Toda and Lax structures. *Selecta Math. (N.S.)* 6 (2000), no. 2, 131–183. 37Kxx
3. 1 795 833 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Избранные задачи интегральної геометрии. (Russian) [Selected problems in integral geometry] Dobrosvet, Moscow, 2000. 208 pp. ISBN: 5-7913-0034-4 53Cxx (44A12)
4. 1 776 904 Gelfand, I. M.; Graev, M. I. Louck polynomials and their relation to general hypergeometric functions and GG-functions. (Russian) *Dokl. Akad. Nauk* 372 (2000), no. 2, 151–154. 33Cxx (20Gxx)
5. 1 751 616 Gelfand, I. M.; Graev, M. I. GG functions and their relations to general hypergeometric functions. *Lett. Math. Phys.* 50 (1999), no. 1, 1–27. 22E30 (14Mxx 32Gxx 33C80)
6. 1 779 777 (Review) Borovik, Alexandre V.; Gelfand, Israel M.; White, Neil Combinatorial flag varieties. In memory of Gian-Carlo Rota. *J. Combin. Theory Ser. A* 91 (2000), no. 1-2, 111–136. 52B40 (05B25 05B35 06C10 51D20 51F15)
7. 2001i:05049 Booth, Richard F.; Borovik, Alexandre V.; Gelfand, Israel M.; Stone, David A. Lagrangian matroids and cohomology. *Ann. Comb.* 4 (2000), no. 2, 171–182. 05B35
8. 2001f:33020 Gelfand, I. M.; Graev, M. I. Special functions associated with complex Lie groups. (Russian) *Dokl. Akad. Nauk* 364 (1999), no. 2, 151–154. 33C80 (22E30)
9. 2001c:05036 Alekseyevskaya, Tatiana V.; Borovik, Alexandre V.; Gelfand, I. M.; White, Neil Matroid homology. The Gelfand Mathematical Seminars, 1996–1999, 1–13, Gelfand Math. Sem., Birkhäuser Boston, Boston, MA, 2000. 05B35 (52B40)
10. 2000m:01033 Buslaev, V. S.; Vershik, A. M.; Gelfand, I. M.; et al. Mikhail Shlomovich Birman (on the occasion of his seventieth birthday). (Russian) *Uspekhi Mat. Nauk* 55 (2000), no. 1(331), 204–207; translation in *Russian Math. Surveys* 55 (2000), no. 1, 201–205 01A70
11. 2000j:33010 Gelfand, I. M.; Graev, M. I. The Fourier transform of rapidly increasing functions and the calculation of integrals that arise in the theory of GG-functions. (Russian) *Dokl. Akad. Nauk* 360 (1998), no. 5, 598–602. 33C70 (46F12)
12. 2000j:01038 Arnold, V. I.; Borisuk, R. M.; Gelfand, I. M.; et al. mmanuil levich Shnol (on the occasion of his seventieth birthday). (Russian) *Uspekhi Mat. Nauk* 54 (1999), no. 3(327), 199–204; translation in *Russian Math. Surveys* 54 (1999), no. 3, 677–683 01A70
13. 2000g:05045 Borovik, Alexandre V.; Gelfand, Israel; White, Neil Symplectic matroids. *J. Algebraic Combin.* 8 (1998), no. 3, 235–252. 05B35

14. 2000f:33017 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. General gamma functions, exponentials and hypergeometric functions. (Russian) *Uspekhi Mat. Nauk* 53 (1998), no. 1(319), 3–60; translation in *Russian Math. Surveys* 53 (1998), no. 1, 1–55 33D80 (33B20 33E20)
15. 2000e:35162 Barros-Neto, J.; Gelfand, I. M. Fundamental solutions for the Tricomi operator. *Duke Math. J.* 98 (1999), no. 3, 465–483. 35M10 (35A08)
16. 2000e:33003 Gelfand, I. M.; Graev, M. I. GG-functions of several variables and their connection with general hypergeometric functions. (Russian) *Dokl. Akad. Nauk* 354 (1997), no. 5, 583–586. 33C20 (33C67)
17. 2000e:33002 Gelfand, I. M.; Graev, M. I. GG-functions of one variable. (Russian) *Dokl. Akad. Nauk* 354 (1997), no. 2, 155–158. 33C20 (33C70)
18. 2000c:05150 Gelfand, I.; Retakh, V. Quasideterminants. I. *Selecta Math. (N.S.)* 3 (1997), no. 4, 517–546. 05E05 (15A15)
19. 99m:05043 Alekseyevskaya, T. V.; Gelfand, I. M. Incidence matrices, geometrical bases, combinatorial prebases and matroids. Proceedings of the 7th Conference on Formal Power Series and Algebraic Combinatorics (Noisy-le-Grand, 1995). *Discrete Math.* 180 (1998), no. 1-3, 23–44. 05B35
20. 99k:33046 Gelfand, Israel M.; Graev, Mark I.; Postnikov, Alexander Combinatorics of hypergeometric functions associated with positive roots. The Arnold-Gelfand mathematical seminars, 205–221, Birkhäuser Boston, Boston, MA, 1997. 33C80 (32G34)
21. 99h:58083 Etingof, Pavel; Gelfand, Israel; Retakh, Vladimir Nonabelian integrable systems, quasideterminants, and Marchenko lemma. *Math. Res. Lett.* 5 (1998), no. 1-2, 1–12. 58F07 (16W25)
22. 99d:53023 Gelfand, Israel; Retakh, Vladimir; Shubin, Mikhail Fedosov manifolds. *Adv. Math.* 136 (1998), no. 1, 104–140. 53C05 (53C15 58F06)
23. 99d:05016 Borovik, Alexandre V.; Gelfand, Israel M.; White, Neil Coxeter matroid polytopes. *Ann. Comb.* 1 (1997), no. 2, 123–134. 05B35 (05E15 52B40)
24. 99b:33031 Gelfand, I. M.; Graev, M. I. GG-functions and their connection with general hypergeometric functions. (Russian) *Uspekhi Mat. Nauk* 52 (1997), no. 4(316), 3–48; translation in *Russian Math. Surveys* 52 (1997), no. 4, 639–684 33C70
25. 98m:05037 Borovik, Alexandre V.; Gelfand, Israel; White, Neil On exchange properties for Coxeter matroids and oriented matroids. *Discrete Math.* 179 (1998), no. 1-3, 59–72. 05B35
26. 98j:05043 Borovik, Alexandre V.; Gelfand, Israel M.; Vince, Andrew; White, Neil The lattice of flats and its underlying flag matroid polytope. *Ann. Comb.* 1 (1997), no. 1, 17–26. 05B35 (52B40)
27. 98d:58081 Etingof, Pavel; Gelfand, Israel; Retakh, Vladimir Factorization of differential operators, quasideterminants, and nonabelian Toda field equations. *Math. Res. Lett.* 4 (1997), no. 2-3, 413–425. 58F07 (35Q58)

28. 98b:53070 Gelfand, I. M.; Graev, M. I.; Zyskin, M. A problem of integral geometry on  $K^3$  connected with harmonic analysis on the group  $\mathrm{SL}(2, K)$ , where  $K$  is an arbitrary continuous locally compact field. (Russian) *Dokl. Akad. Nauk* 352 (1997), no. 1, 15–17. 53C65 (22E30)
29. 98a:52005 Alvarez, J. C.; Gelfand, I. M.; Smirnov, M. Crofton densities, symplectic geometry and Hilbert's fourth problem. *The Arnold-Gelfand mathematical seminars*, 77–92, Birkhäuser Boston, Boston, MA, 1997. 52A22 (53C65 58F05)
30. 97j:05021 Borovik, Alexandre V.; Gelfand, Israel; White, Neil Boundaries of Coxeter matroids. *Adv. Math.* 120 (1996), no. 2, 258–264. 05B35 (20F55)
31. 97i:58071 Fokas, A. S.; Gelfand, I. M.; Zyskin, M. V. Nonlinear integrable equations and nonlinear Fourier transform. *The Arnold-Gelfand mathematical seminars*, 139–170, Birkhäuser Boston, Boston, MA, 1997. 58F07 (35Q58)
32. 97h:58142 Fokas, A. S.; Gelfand, I. M. A unified method for solving linear and nonlinear evolution equations and an application to integrable surfaces. *The Gelfand Mathematical Seminars, 1993–1995*, 75–92, Gelfand Math. Sem., Birkhäuser Boston, Boston, MA, 1996. 58F39 (35Q55 53A10 58F07)
33. 97h:33024 Gelfand, I. M.; Graev, M. I.; Spirin, S. A. Hypergeometric functions and the Newton polytope associated with the action of the torus ( $C^*$ ) on  $\bigwedge^k C^n$ . (Russian) *Dokl. Akad. Nauk* 348 (1996), no. 2, 155–158. 33C70 (14M25)
34. 97g:58025 Gelfand, I. M.; Smirnov, M. M. Chern-Simons classes and cocycles on the Lie algebra of the gauge group. *The Gelfand Mathematical Seminars, 1993–1995*, 101–122, Gelfand Math. Sem., Birkhäuser Boston, Boston, MA, 1996. 58D19 (17B55 22E65 58B25)
35. 97g:53003 Fokas, A. S.; Gelfand, I. M. Surfaces on Lie groups, on Lie algebras, and their integrability. With an appendix by Juan Carlos Alvarez Paiva. *Comm. Math. Phys.* 177 (1996), no. 1, 203–220. 53A05 (22E60 35A30 53A10 58F07)
36. 97e:58236 Gelfand, Israel M.; Smirnov, Mikhail M. The algebra of Chern-Simons classes, the Poisson bracket on it, and the action of the gauge group. *Lie theory and geometry*, 261–288, Progr. Math., 123, Birkhäuser Boston, Boston, MA, 1994. 58H99 (57R20 58F05)
37. 97d:33008 Gelfand, I. M.; Graev, M. I. Hypergeometric functions on a space of  $p$ -dimensional matrices. (Russian) *Dokl. Akad. Nauk* 346 (1996), no. 1, 7–10. 33C70
38. 97a:01042 Bassalygo, L. A.; Gelfand, S. I.; Golubev, G. K.; Dobrushin, R. L.; Prelov, V. V.; Sinai, Ya. G.; Khas minskii, R. Z.; Yaglom, A. M. A survey of the scientific activity of M. S. Pinsker. (Russian) *Problemy Peredachi Informatsii* 32 (1996), no. 1, 5–19; translation in *Problems Inform. Transmission* 32 (1996), no. 1, 3–14 01A70
39. 96j:05032 Gelfand, Israel M.; Rybnikov, Grigori L.; Stone, David A. Projective orientations of matroids. *Adv. Math.* 113 (1995), no. 1, 118–150. 05B35
40. 96h:35206 Fokas, A. S.; Gelfand, I. M. Integrability of linear and nonlinear evolution equations and the associated nonlinear Fourier transforms. *Lett. Math. Phys.* 32 (1994), no. 3, 189–210. 35Q55 (34L05 58F07 58F37)

41. 96f:33029 Gelfand, I. M.; Graev, M. I. Hypergeometric functions on flag spaces. (Russian) Dokl. Akad. Nauk 338 (1994), no. 2, 154–157; translation in Russian Acad. Sci. Dokl. Math. 50 (1995), no. 2, 204–209 33C70 (32C38)
42. 96e:05175 Gelfand, Israel M.; Krob, Daniel; Lascoux, Alain; Leclerc, Bernard; Retakh, Vladimir S.; Thibon, Jean-Yves Noncommutative symmetric functions. Adv. Math. 112 (1995), no. 2, 218–348. 05E05 (15A15 16W30)
43. 96d:47045 Gelfand, Israel M.; Zakharevich, Ilya The spectral theory for a pencil of skewsymmetrical differential operators of the third order. Comm. Pure Appl. Math. 47 (1994), no. 8, 1031–1041. 47E05 (34L05 47A56 47B20 58F07)
44. 96c:16039 Corwin, L. J.; Gelfand, I. M.; Goodman, Roe Quadratic algebras and skew-fields. Representation theory and analysis on homogeneous spaces (New Brunswick, NJ, 1993), 217–225, Contemp. Math., 177, Amer. Math. Soc., Providence, RI, 1994. 16S90 (16P90 16S30 16S99)
45. 96a:53092 Gelfand, Israel M.; Smirnov, Mikhail M. Lagrangians satisfying Crofton formulas, Radon transforms, and nonlocal differentials. Adv. Math. 109 (1994), no. 2, 188–227. 53C65 (58G15)
46. 95k:58074 Fokas, A. S.; Gelfand, I. M. Bi-Hamiltonian structures and integrability. Important developments in soliton theory, 259–282, Springer Ser. Nonlinear Dynam., Springer, Berlin, 1993. 58F07 (35Q58)
47. 95i:33001 Gelfand, I. M.; Graev, M. I.; Retakh, V. S.; Spirin, S. A.  $(r, s)$ -exponentials. (Russian) Dokl. Akad. Nauk 336 (1994), no. 6, 730–732; translation in Russian Acad. Sci. Dokl. Math. 49 (1994), no. 3, 577–581 33B10 (39A12 39B22)
48. 95h:22004 Gelfand, I. M.; Graev, M. I. Projective nonunitary representations of current groups. (Russian) Dokl. Akad. Nauk 338 (1994), no. 3, 298–301; translation in Russian Acad. Sci. Dokl. Math. 50 (1995), no. 2, 234–239 22D12 (22E67)
49. 95g:52021 Borovik, Alexandre V.; Gelfand, Israel M.  $WP$ -matroids and thin Schubert cells on Tits systems. Adv. Math. 103 (1994), no. 2, 162–179. 52B40 (05B35 20E42 51E24)
50. 95f:58040 Fokas, A. S.; Gelfand, I. M. Quadratic Poisson algebras and their infinite-dimensional extensions. J. Math. Phys. 35 (1994), no. 6, 3117–3131. 58F07 (17B66)
51. 95e:14045 Gelfand, I. M.; Kapranov, M. M.; Zelevinsky, A. V. Discriminants, resultants, and multidimensional determinants. Mathematics: Theory & Applications. Birkhäuser Boston, Inc., Boston, MA, 1994. x+523 pp. ISBN: 0-8176-3660-9 14N05 (13D25 14M25 15A69 33C70 52B20)
52. 95c:22023 Gelfand, I. M.; Graev, M. I. Projective representations of the current group  $SU(1, 1)^X$ . (Russian) Funktsional. Anal. i Prilozhen. 27 (1993), no. 4, 65–68; translation in Funct. Anal. Appl. 27 (1993), no. 4, 275–277 (1994) 22E65 (22D12 22E45 22E70 81R10)
53. 95b:33049 Gelfand, I. M.; Graev, M. I.; Retakh, V. S.  $(R, S)$ -hypergeometric functions of one variable. (Russian) Dokl. Akad. Nauk 333 (1993), no. 5, 567–570; translation in

Russian Acad. Sci. Dokl. Math. 48 (1994), no. 3, 591–596 33D20 (22E30 32M99 32S70 33D80)

54. 95b:22013 Gelfand, I. M.; Graev, M. I. Special representations of the group  $SU(n, 1)$  and projective unitary representations of the current group  $SU(n, 1)^X$ . (Russian) Dokl. Akad. Nauk 332 (1993), no. 3, 280–282; translation in Russian Acad. Sci. Dokl. Math. 48 (1994), no. 2, 291–295 22D12 (22E45 22E67 22E70 81R10)
55. 95a:33040 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. The  $q$ -hypergeometric Gauss equation and the description of its solutions in the form of series and integrals. (Russian) Dokl. Akad. Nauk 331 (1993), no. 2, 140–143; translation in Russian Acad. Sci. Dokl. Math. 48 (1994), no. 1, 40–45 33D45 (22E45 32S70 34A99)
56. 95a:33035 Gelfand, Israel M.; Graev, Mark I.; Retakh, Vladimir S. Hypergeometric functions on the external power  $\Lambda^k C^n$  and on the Grassmannian  $G_{k,n}$ , their relationships and integral representations. Russian J. Math. Phys. 1 (1993), no. 3, 289–311. 33C80 (22E45 32M15 32S60 33C50)
57. 95a:22010 Gelfand, I. M.; Zelevinskii, A. V.; Kapranov, M. M. Correction to the paper: "Hypergeometric functions and toric varieties" [Funktional. Anal. i Prilozhen. 23 (1989), no. 2, 12–26; MR 90m:22025]. (Russian) Funktsional. Anal. i Prilozhen. 27 (1993), no. 4, 91; translation in Funct. Anal. Appl. 27 (1993), no. 4, 295 (1994) 22E30 (14M25 32S60 33C20 33C80 58G07)
58. 94m:58079 Gelfand, Israel M.; Zakharevich, Ilya On the local geometry of a bi-Hamiltonian structure. The Gelfand Mathematical Seminars, 1990–1992, 51–112, Birkhäuser Boston, Boston, MA, 1993. 58F05 (58F07)
59. 94m:14071 Gelfand, I. M.; Kapranov, M. M. On the dimension and degree of the projective dual variety: a  $q$ -analog of the Katz-Kleiman formula. The Gelfand Mathematical Seminars, 1990–1992, 27–33, Birkhäuser Boston, Boston, MA, 1993. 14N10 (14N05)
60. 94k:52008 Gelfand, I. M.; Smirnov, M. M. Crofton densities and nonlocal differentials. The Gelfand Mathematical Seminars, 1990–1992, 35–50, Birkhäuser Boston, Boston, MA, 1993. 52A22
61. 94k:33030 Gelfand, Israel M.; Graev, Mark I.; Retakh, Vladimir S. Reduction formulas for hypergeometric functions associated with the Grassmannian  $G_{k,n}$  and description of these functions on strata of small codimension in  $G_{k,n}$ . Russian J. Math. Phys. 1 (1993), no. 1, 19–56. 33C70 (14M15 33C65 33E30)
62. 94k:17018 Corwin, L.; Gelfand, I. M. Hopf algebra structures for the Heisenberg algebra. I. The Gelfand Mathematical Seminars, 1990–1992, 11–17, Birkhäuser Boston, Boston, MA, 1993. 17B35 (16W30)
63. 94j:33027 Gelfand, I. M.; Graev, M. I. GG-functions. (Russian) Dokl. Akad. Nauk 328 (1993), no. 6, 645–648; translation in Russian Acad. Sci. Dokl. Math. 47 (1993), no. 1, 134–138 33C70 (33D70)
64. 94h:33005 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. General hypergeometric systems of equations and series of hypergeometric type. (Russian) Uspekhi Mat. Nauk 47 (1992), no. 4(286), 3–82, 235; translation in Russian Math. Surveys 47 (1992), no. 4, 1–88 33C70 (32G34 33C80 33D70)

65. 94g:14023 Gelfand, I. M.; Kapranov, M. M.; Zelevinsky, A. V. Hyperdeterminants. *Adv. Math.* 96 (1992), no. 2, 226–263. 14J70 (14M15 15A15)
66. 94c:33028 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. Difference analogues and  $q$ -analogues of general hypergeometric systems of differential equations. (Russian) *Dokl. Akad. Nauk* 325 (1992), no. 2, 215–220; translation in *Russian Acad. Sci. Dokl. Math.* 46 (1993), no. 1, 30–35 33C80 (22E45 32G34 33D80 58G07)
67. 94b:22007 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. Generalized hypergeometric functions connected with an arbitrary finite or a locally compact continuous field. (Russian) *Dokl. Akad. Nauk* 323 (1992), no. 3, 394–397; translation in *Russian Acad. Sci. Dokl. Math.* 45 (1992), no. 2, 343–347 (1993) 22E45 (22E55 33C80)
68. 94b:15003 Gelfand, I. M.; Retakh, V. S. Theory of noncommutative determinants, and characteristic functions of graphs. (Russian) *Funktional. Anal. i Prilozhen.* 26 (1992), no. 4, 1–20, 96; translation in *Funct. Anal. Appl.* 26 (1992), no. 4, 231–246 (1993) 15A15 (15A06 15A09 15A23 16U20)
69. 94b:14053 Gelfand, I. M.; Kapranov, M. M.; Zelevinsky, A. V. Hypergeometric functions, toric varieties and Newton polyhedra. Special functions (Okayama, 1990), 104–121, ICM-90 Satell. Conf. Proc., Springer, Tokyo, 1991. 14M25 (33C05 33C45 33D45)
70. 94a:57043 Gelfand, I. M.; Tsygan, B. L. On the localization of topological invariants. *Comm. Math. Phys.* 146 (1992), no. 1, 73–90. 57R20 (19K56 58A10 58G05)
71. 93m:52014 Billera, L. J.; Gelfand, I. M.; Sturmfels, B. Duality and minors of secondary polyhedra. *J. Combin. Theory Ser. B* 57 (1993), no. 2, 258–268. 52B05 (52B35 52B40)
72. 93i:00011 Gelfand, Izrail M. Two archetypes in the psychology of Man. *Nonlinear Sci. Today* 1 (1991), no. 4, 11–16. 00A99 (01A67)
73. 93g:17039 Gelfand, I. M.; Mathieu, O. On the cohomology of the Lie algebra of Hamiltonian vector fields. *J. Funct. Anal.* 108 (1992), no. 2, 347–360. 17B56 (17B66 58F05)
74. 93e:53083 Gelfand, I. M.; Graev, M. I. The Crofton function and inversion formulas in real integral geometry. (Russian) *Funktional. Anal. i Prilozhen.* 25 (1991), no. 1, 1–6; translation in *Funct. Anal. Appl.* 25 (1991), no. 1, 1–5 53C65 (52A22)
75. 93e:22022 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. Hypergeometric functions on the  $k$ th exterior power of the space  $C^n$  and the Grassmannian  $G_{k,n}$  and the connection between them. (Russian) *Dokl. Akad. Nauk SSSR* 320 (1991), no. 1, 20–24; translation in *Soviet Math. Dokl.* 44 (1992), no. 2, 375–380 22E45 (32M10 32S45 32S60 33C70 33C80)
76. 93d:58070 Gelfand, Israel M.; Zakharevich, Ilya Webs, Veronese curves, and bi-Hamiltonian systems. *J. Funct. Anal.* 99 (1991), no. 1, 150–178. 58F07 (14C21)
77. 93d:57054 Gelfand, I. M.; MacPherson, R. D. A combinatorial formula for the Pontrjagin classes. *Bull. Amer. Math. Soc. (N.S.)* 26 (1992), no. 2, 304–309. 57R20 (05B35)
78. 93b:33015 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. Reduction formulas for hypergeometric functions on the Grassmannian  $G_{k,n}$  and the description of hypergeometric functions on strata of small codimensions. (Russian) *Dokl. Akad. Nauk SSSR* 318 (1991), no.

- 4, 793–797; translation in Soviet Math. Dokl. 43 (1991), no. 3, 757–761 (1992) 33C80 (14M15)
79. 92k:22033 Gelfand, I. M.; Graev, M. I. Principal representations of the group  $U(\infty)$ . Representation of Lie groups and related topics, 119–153, Adv. Stud. Contemp. Math., 7, Gordon and Breach, New York, 1990. 22E65
80. 92k:15018 Gelfand, I. M.; Retakh, V. S. Determinants of matrices over noncommutative rings. (Russian) Funktsional. Anal. i Prilozhen. 25 (1991), no. 2, 13–25, 96; translation in Funct. Anal. Appl. 25 (1991), no. 2, 91–102 15A15 (15A33 16B99)
81. 92h:33027 Gelfand, I. M.; Graev, M. I.; Retakh, V. S. Hypergeometric functions on strata of small codimensions in  $G_{k,n}$ . (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1990, no. 138, 25 pp. 33C60 (32S60)
82. 92g:01067 Brushlinskii, K. V.; Gavrilov, M. M.; Gelfand, I. M.; et al. Oleg Vyacheslavovich Lokutsievskii. (Russian) Uspekhi Mat. Nauk 46 (1991), no. 2(278), 203–204; translation in Russian Math. Surveys 46 (1991), no. 2, 233–235 01A70
83. 92e:33015 Gelfand, I. M.; Kapranov, M. M.; Zelevinsky, A. V. Generalized Euler integrals and  $A$ -hypergeometric functions. Adv. Math. 84 (1990), no. 2, 255–271. 33C70 (14M25 32S60 33C80)
84. 92d:17015 Gelfand, I. M.; Fairlie, D. B. The algebra of Weyl symmetrised polynomials and its quantum extension. Comm. Math. Phys. 136 (1991), no. 3, 487–499. 17B37 (17B65 81R50)
85. 92a:18003b Gelfand, S. I.; Manin, Yu. I. Homological algebra. (Russian) Current problems in mathematics. Fundamental directions, Vol. 38 (Russian), 5–240, Itogi Nauki i Tekhniki, Akad. Nauk SSSR, Vsesoyuz. Inst. Nauchn. i Tekhn. Inform., Moscow, 1989. 18Gxx (14C30 17B66 32C38)
86. 92a:14060 Gelfand, I. M.; Kapranov, M. M.; Zelevinsky, A. V. Newton polytopes of the classical resultant and discriminant. Adv. Math. 84 (1990), no. 2, 237–254. 14M25 (12E05)
87. 91m:14080 Gelfand, I. M.; Zelevinskii, A. V.; Kapranov, M. M. Discriminants of polynomials in several variables and triangulations of Newton polyhedra. (Russian) Algebra i Analiz 2 (1990), no. 3, 1–62; translation in Leningrad Math. J. 2 (1991), no. 3, 449–505 14M25 (12E05 52B20)
88. 91j:58015 Gelfand, I. M.; Daletskii, Yu. L.; Tsygan, B. L. On a variant of noncommutative differential geometry. (Russian) Dokl. Akad. Nauk SSSR 308 (1989), no. 6, 1293–1297; translation in Soviet Math. Dokl. 40 (1990), no. 2, 422–426 58B30 (17A70 17B70 58A50)
89. 91j:33004 Gelfand, I. M.; Graev, M. I.; Retakh, V. S.  $\Gamma$ -series and general hypergeometric functions on the manifold of  $k \times n$  matrices. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1990, no. 64, 27 pp. 33C20 (33C80)
90. 91g:11052 Gelfand, I. M.; Graev, M. I.; Pyatetskii-Shapiro, I. I. Representation theory and automorphic functions. Translated from the Russian by K. A. Hirsch. Reprint of the 1969 edition. Generalized Functions, 6. Academic Press, Inc., Boston, MA, 1990. xviii+426 pp. ISBN: 0-12-279506-7 11F70 (22E40 22E45 22E50 22E55)

91. 91e:14047 Gelfand, I. M.; Zelevinskiĭ, A. V.; Kapranov, M. M. Discriminants of polynomials in several variables. (Russian) *Funktional. Anal. i Prilozhen.* 24 (1990), no. 1, 1–4; translation in *Funct. Anal. Appl.* 24 (1990), no. 1, 1–4 14M25 (12E05 33C80 52B30)
92. 91d:17008 Gelfand, I. M.; Zelevinskiĭ, A. V. A canonical basis in irreducible representations of  $gl_3$  and its applications. (Russian) Group-theoretic methods in physics, Vol. 2 (Russian) (Jūrmala, 1985), 31–45, "Nauka", Moscow, 1986. 17B10 (22E46)
93. 91b:33017 Gelfand, I. M.; Zelevinskiĭ, A. V.; Serganova, V. V. General hypergeometric functions that are connected with a pair of homogeneous spaces. (Russian) *Dokl. Akad. Nauk SSSR* 304 (1989), no. 5, 1044–1049; translation in *Soviet Math. Dokl.* 39 (1989), no. 1, 182–187 33C70 (22E30 33C80)
94. 90m:22025 Gelfand, I. M.; Zelevinskiĭ, A. V.; Kapranov, M. M. Hypergeometric functions and toric varieties. (Russian) *Funktional. Anal. i Prilozhen.* 23 (1989), no. 2, 12–26; translation in *Funct. Anal. Appl.* 23 (1989), no. 2, 94–106 22E30 (14L32 32C42 33A30 58G07)
95. 90m:14045 Gelfand, I. M.; Zelevinskiĭ, A. V.; Kapranov, M. M. Projective-dual varieties and hyperdeterminants. (Russian) *Dokl. Akad. Nauk SSSR* 305 (1989), no. 6, 1294–1298; translation in *Soviet Math. Dokl.* 39 (1989), no. 2, 385–389 14L32 (22E45 22E46 32C40 32C42 33A30 58G07)
96. 90k:32042 Gelfand, I. M.; Rybnikov, G. L. Algebraic and topological invariants of oriented matroids. (Russian) *Dokl. Akad. Nauk SSSR* 307 (1989), no. 4, 791–795; translation in *Soviet Math. Dokl.* 40 (1990), no. 1, 148–152 32C40 (05B35)
97. 90k:14055 Gelfand, I. M.; Zelevinskiĭ, A. V.; Kapranov, M. M. Newton polyhedra of principal  $A$ -determinants. (Russian) *Dokl. Akad. Nauk SSSR* 308 (1989), no. 1, 20–23; translation in *Soviet Math. Dokl.* 40 (1990), no. 2, 278–281 14L32 (12E05 22E30 32C42 33A35 52A37)
98. 90k:14054 Gelfand, I. M.; Zelevinskiĭ, A. V.; Kapranov, M. M.  $A$ -discriminants and Cayley-Koszul complexes. (Russian) *Dokl. Akad. Nauk SSSR* 307 (1989), no. 6, 1307–1311; translation in *Soviet Math. Dokl.* 40 (1990), no. 1, 239–243 14L32 (12E05 22E30 32C42 33A35 52A37)
99. 90j:15001 Gelfand, I. M. Lectures on linear algebra. With the collaboration of Z. Ya. Shapiro. Translated from the second Russian edition by A. Shenitzer. Reprint of the 1961 translation. Dover Books on Advanced Mathematics. Dover Publications, Inc., New York, 1989. vi+185 pp. ISBN: 0-486-66082-6 15-01 (01A75)
100. 90i:47048 Gelfand, I. M.; Zakharevich, I. S. Spectral theory of a pencil of third-order skew-symmetric differential operators on  $S^1$ . (Russian) *Funktional. Anal. i Prilozhen.* 23 (1989), no. 2, 1–11; translation in *Funct. Anal. Appl.* 23 (1989), no. 2, 85–93 47E05 (34B25 47A10 47A56 47B50 58F05 58F19)
101. 90f:22024 Gelfand, I. M.; Graev, M. I.; Vershik, A. M. The commutative model of the principal representation of the current group  $SL(2, R)^X$  with respect to a unipotent subgroup. Group theoretical methods in physics, Vol. 1–3 (Zvenigorod, 1982), 3–22, Harwood Academic Publ., Chur, 1985. 22E65 (22D10 58D15)

102. 90e:17014 Gelfand, I. M.; Zelevinskii, A. V. Multiplicities and regular bases for  $gl_n$ . (Russian) Group-theoretic methods in physics, Vol. 2 (Russian) (Jūrmala, 1985), 22–31, "Nauka", Moscow, 1986. 17B15
103. 90d:01091 Gelfand, Izrail M. Collected papers. Vol. III. Edited by S. G. Gindikin, V. W. Guillemin, A. A. Kirillov, B. Kostant and S. Sternberg. With a foreword by Gindikin. With a contribution by Kostant. Springer-Verlag, Berlin, 1989. x+1075 pp. ISBN: 3-540-19399-5 01A75
104. 90c:32046 Gelfand, I. M.; Graev, M. I. Hypergeometric functions related to the Grassmannian  $G_{3,6}$ . (Russian) Mat. Sb. 180 (1989), no. 1, 3–38, 142; translation in Math. USSR-Sb. 66 (1990), no. 1, 1–40 32M10 (22E45 33A30 58G07)
105. 90b:22014 Vasilev, V. A.; Gelfand, I. M.; Zelevinskii, A. V. General hypergeometric functions on complex Grassmannians. (Russian) Funktsional. Anal. i Prilozhen. 21 (1987), no. 1, 23–38. 22E47 32C42 33A30
106. 89m:05014 Alekseevskaya, T. V.; Gelfand, I. M.; Zelevinskii, A. V. Distribution of real hyperplanes and the partition function connected with it. (Russian) Dokl. Akad. Nauk SSSR 297 (1987), no. 6, 1289–1293; translation in Soviet Math. Dokl. 36 (1988), no. 3, 589–593 05A99 (32C40 32C42)
107. 89k:01042b Gelfand, Izrail M. Collected papers. Vol. II. Edited by S. G. Gindikin, V. W. Guillemin, A. A. Kirillov, B. Kostant and S. Sternberg. With a foreword by Kirillov. With contributions by G. Segal and C. M. Ringel. Springer-Verlag, Berlin, 1988. x+1038 pp. ISBN: 3-540-19035-X 01A75
108. 89k:01042a Gelfand, Izrail M. Collected papers. Vol. I. With remarks by V. W. Guillemin and S. Sternberg. Springer-Verlag, Berlin, 1987. vi+883 pp. ISBN: 3-540-13619-3 01A75
109. 89k:01027 Afendikov, A. L.; Volevich, L. R.; Voskresenskiĭ, G. P.; Gelfand, I. M.; Zabrodin, A. V.; Lokutsievskiĭ, O. V.; Oleĭnik, O. A.; Tikhomirov, V. M.; Chentsov, N. N. Konstantin Ivanovich Babenko. (Russian) Uspekhi Mat. Nauk 43 (1988), no. 2(260), 115–123; translation in Russian Math. Surveys 43 (1988), no. 2, 139–151 01A70
110. 89j:22015 Gelfand, I. M.; Zelevinskii, A. V.; Kapranov, M. M. Equations of hypergeometric type and Newton polyhedra. (Russian) Dokl. Akad. Nauk SSSR 300 (1988), no. 3, 529–534; translation in Soviet Math. Dokl. 37 (1988), no. 3, 678–682 22E30 (32C42 33A30 58G07)
111. 89i:01066 Buslaev, V. S.; Gelfand, I. M.; Ladyzhenskaya, O. A.; Pavlov, B. S.; Solomyak, M. Z.; Faddeev, L. D.; Yafaev, D. R. Mikhail Shlëmovich Birman (on the occasion of his sixtieth birthday). (Russian) Uspekhi Mat. Nauk 43 (1988), no. 3(261), 201–202; translation in Russian Math. Surveys 43 (1988), no. 3, 233–235 01A70
112. 89h:32028 Varchenko, A. N.; Gelfand, I. M. Heaviside functions of a configuration of hyperplanes. (Russian) Funktsional. Anal. i Prilozhen. 21 (1987), no. 4, 1–18, 96. 32C40 (51M20)
113. 89g:32049 Gelfand, I. M.; Serganova, V. V. Combinatorial geometries and the strata of a torus on homogeneous compact manifolds. (Russian) Uspekhi Mat. Nauk 42 (1987), no. 2(254), 107–134, 287. 32M10 (22E40 32C42)

114. 89c:32084 Gelfand, I. M.; Graev, M. I. Strata in  $G_{3,6}$  and the hypergeometric functions connected with them. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1987, no. 127, 28 pp. 32M10 (22E45 32C42 33A35)
115. 89c:32083 Gelfand, I. M.; Graev, M. I. General hypergeometric functions on the Grassmannian  $G_{3,6}$ . (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1987, no. 123, 28 pp. 32M10 (22E45 32C42 33A35)
116. 89b:33018 Gelfand, I. M.; Retakh, V. S.; Serganova, V. V. Generalized Airey functions, Schubert cells and Jordan groups. (Russian) Dokl. Akad. Nauk SSSR 298 (1988), no. 1, 17–21; translation in Soviet Math. Dokl. 37 (1988), no. 1, 8–12 33A75 (17B65 22E45 32C40 58G07)
117. 89a:17011 Gelfand, I. M.; Zelevinsky, A. Multiplicities and proper bases for  $\mathrm{gl}_n$ . Group theoretical methods in physics, Vol. II (Yurmala, 1985), 147–159, VNU Sci. Press, Utrecht, 1986. 17B10
118. 89a:17010 Gelfand, I. M.; Zelevinsky, A. Canonical basis in irreducible representations of  $\mathrm{gl}_3$  and its applications. Group theoretical methods in physics, Vol. II (Yurmala, 1985), 127–146, VNU Sci. Press, Utrecht, 1986. 17B10 (22E45)
119. 88m:33006 Gelfand, I. M.; Zelevinskii, A. V. Algebraic and combinatorial aspects of the general theory of hypergeometric functions. (Russian) Funktsional. Anal. i Prilozhen. 20 (1986), no. 3, 17–34, 96. 33A30 (05A10 17B10 22E45 32C40 51D20)
120. 88m:01075 Gelfand, I. M.; Krein, M. G.; Marchenko, V. A.; Nikolskii, N. K.; Ostrovskii, I. V. Boris Yakovlevich Levin (on the occasion of his eightieth birthday). (Russian) Uspekhi Mat. Nauk 42 (1987), no. 4(256), 207–210. 01A70
121. 88j:58118 Gelfand, I. M.; Graev, M. I.; Zelevinskii, A. V. Holonomic systems of equations and series of hypergeometric type. (Russian) Dokl. Akad. Nauk SSSR 295 (1987), no. 1, 14–19; translation in Soviet Math. Dokl. 36 (1988), no. 1, 5–10 58G07 (22E45 32C38 32C42 33A30)
122. 88i:01082 Berezanski, Yu. M.; Gelfand, I. M.; Krein, M. G.; Krein, S. G.; Mitropolskii, Yu. A.; Skorokhod, A. V. Yurii Lvovich Daletskii (on the occasion of his sixtieth birthday). (Russian) Uspekhi Mat. Nauk 42 (1987), no. 4(256), 213–214. 01A70
123. 88g:32023 Gelfand, I. M.; Graev, M. I. Hypergeometric functions connected with the Grassmannian  $G_{3,6}$ . (Russian) Dokl. Akad. Nauk SSSR 293 (1987), no. 2, 288–293. 32C42 (22E30 32M10 33A35)
124. 88g:06012 Gelfand, I. M.; Lidskii, B. V.; Ponomarev, V. A. Preprojective reduction of the free modular lattice  $D^r$ . (Russian) Dokl. Akad. Nauk SSSR 293 (1987), no. 3, 524–528. 06C05 (06B25 16A64)
125. 88g:05042 Gelfand, I. M.; Serganova, V. V. On the general definition of a matroid and a greedoid. (Russian) Dokl. Akad. Nauk SSSR 292 (1987), no. 1, 15–20. 05B35
126. 88f:14045 Gelfand, I. M.; Goresky, R. M.; MacPherson, R. D.; Serganova, V. V. Combinatorial geometries, convex polyhedra, and Schubert cells. Adv. in Math. 63 (1987), no. 3, 301–316. 14M15 (05B35 22E45 22E70 32C38 32C45 32M10)

127. 88e:32050 Gelfand, I. M.; Serganova, V. V. Strata of the maximal torus in a compact homogeneous space. (Russian) Dokl. Akad. Nauk SSSR 292 (1987), no. 3, 524–528. 32M10 (32C42)
128. 88d:58010 Gelfand, I. M.; Minakhin, V. V.; Shander, V. N. Integration in supermanifolds and the Radon supertransform. (Russian) Funktsional. Anal. i Prilozhen. 20 (1986), no. 4, 67–69. 58A50 (53C65 58C35 58C50)
129. 88d:53064 Gelfand, I. M.; Graev, M. I. Description of all inversion formulas in a problem of integral geometry connected with the Grassmannian  $G_{k,n}$ . (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1986, no. 102, 27 pp. 53C65 (32L25 32M10)
130. 88d:22019 Vasilev, V. A.; Gelfand, I. M.; Zelevinskii, A. V. The behavior of general hypergeometric functions in a complex domain. (Russian) Dokl. Akad. Nauk SSSR 290 (1986), no. 2, 277–281. 22E30 (32L25 33A35 43A85)
131. 88b:22022 Gelfand, I. M.; Zelevinsky, A. V. Representation models for classical groups and their higher symmetries. The mathematical heritage of lie Cartan (Lyon, 1984). Astrisque 1985, Numero Hors Serie, 117–128. 22E55 (20G05)
132. 88a:22032 Gelfand, I. M.; Graev, M. I.; Vershik, A. M. Models of representations of current groups. Representations of Lie groups and Lie algebras (Budapest, 1971), 121–179, Akad. Kiad, Budapest, 1985. 22E65 (22E70 81D15)
133. 88a:22026 Gelfand, I. M.; Graev, M. I. A duality theorem for general hypergeometric functions. (Russian) Dokl. Akad. Nauk SSSR 289 (1986), no. 1, 19–23. 22E45 (22E30 33A30)
134. 87m:44005 Gelfand, I. M.; Goncharov, A. B. Reconstruction of a compactly supported function from its integrals on lines intersecting a set of points in a space. (Russian) Dokl. Akad. Nauk SSSR 290 (1986), no. 5, 1037–1040. 44A15 (22E30 32L99 43A85 92A07)
135. 87j:32096 Gelfand, I. M.; Goncharov, A. B. A characterization of Grassmann manifolds. (Russian) Dokl. Akad. Nauk SSSR 289 (1986), no. 5, 1047–1052. 32M10 (53C30)
136. 87h:22013 Gelfand, I. M.; Gelfand, S. I. Generalized hypergeometric equations. (Russian) Dokl. Akad. Nauk SSSR 288 (1986), no. 2, 279–283. 22E30 (32L25 33A75 43A85)
137. 87h:22012 Gelfand, I. M. General theory of hypergeometric functions. (Russian) Dokl. Akad. Nauk SSSR 288 (1986), no. 1, 14–18. 22E30 (32L25 33A75 43A85)
138. 87f:92004 Gelfand, I. M.; Rozenfeld, B. I.; Shifrin, M. A. Structural organization of data in problems of medical diagnosis and prognosis. (Russian) Medical diagnostic and prognostic problems from the mathematician's viewpoint. Voprosy Kibernet. (Moscow) No. 112 (1985), 5–64. 92A07
139. 87e:43014 Aĭrapetyan, R. G.; Gelfand, I. M.; Graev, M. I.; Oganesyan, G. R. The Plancherel theorem for an integral transform connected with a pair of Grassmann manifolds. (Russian) Izv. Akad. Nauk Armyan. SSR Ser. Mat. 19 (1984), no. 6, 467–483, 489. 43A85 (22E45 32L25)

140. 87e:01031 Arnold, V. I.; Vishik, M. I.; Gelfand, I. M.; Egorov, Yu. V.; Kalashnikov, A. S.; Kolmogorov, A. N.; Novikov, S. P.; Sobolev, S. L. Olga Arsenevna Oleinik (on the occasion of her sixtieth birthday). (Russian) *Uspekhi Mat. Nauk* 40 (1985), no. 5(245), 279–293. 01A70
141. 87c:22026 Gelfand, I. M.; Graev, M. I. Some families of irreducible unitary representations of the group  $U(\infty)$ . (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint* 1985, no. 51, 26 pp. 22E45 (81C40)
142. 87c:17014 Gelfand, I. M.; Zelevinskii, A. V. Polyhedra in a space of diagrams and the canonical basis in irreducible representations of  $gl_3$ . (Russian) *Funktional. Anal. i Prilozhen.* 19 (1985), no. 2, 72–75. 17B10
143. 87b:92010 Gelfand, I. M.; Guberman, Sh. A.; Gindikin, S. G.; Izvekova, M. L.; Kandel, I.; Melikova, M. Yu.; Rozenfeld, B. I.; Starkova, M. N.; Syrkin, A. L.; Chebotareva, N. M. Some problems of classification and prognosis from different fields of medicine. (Russian) Medical diagnostic and prognostic problems from the mathematician's viewpoint. *Voprosy Kibernet.* (Moscow) No. 112 (1985), 65–127. 92A07
144. 86i:22024 Gelfand, I. M.; Zelevinskii, A. V. Models of representations of classical groups and their hidden symmetries. (Russian) *Funktional. Anal. i Prilozhen.* 18 (1984), no. 3, 14–31. 22E45 (20G05 81C40)
145. 86f:17011 Gelfand, I. M.; Daletskii, Yu. L. Some formal differential structures connected with Lie superalgebras. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint* 1984, no. 85, 27 pp. 17B56 (17B70 58A50)
146. 86f:01040 Gelfand, I. M.; Levin, B. Ya.; Marchenko, V. A.; Pogorelov, A. V.; Sobolev, S. L. Mikhail Iosifovich Kadets (on the occasion of his sixtieth birthday). (Russian) *Uspekhi Mat. Nauk* 39 (1984), no. 6(240), 249–250. 01A70
147. 86c:53048 Ačrapetyan, R. G.; Gelfand, I. M.; Graev, M. I.; Oganesyan, G. R. The Plancherel theorem for an integral transformation related to a complex of  $p$ -dimensional planes in  $CP^n$  and  $C^n$ . (Russian) *Izv. Akad. Nauk Armyan. SSR Ser. Mat.* 18 (1983), no. 4, 271–282. 53C65 (43A85)
148. 86c:22016 Gelfand, I. M.; Graev, M. I.; Rošu, R. The problem of integral geometry and intertwining operators for a pair of real Grassmannian manifolds. *J. Operator Theory* 12 (1984), no. 2, 359–383. 22E30 (22E45 43A85 47B99 53C65)
149. 86a:22029 Gelfand, I. M.; Zelevinskii, A. V. Models of representations of classical groups and their hidden symmetries. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint* 1984, no. 71, 26 pp. 22E45 (32L25 81C40)
150. 85j:22037b Vershik, A. M.; Gelfand, I. M.; Graev, M. I. Commutative model of the representation of the group of flows  $SL(2, R)^X$  connected with a unipotent subgroup. (Russian) *Funktional. Anal. i Prilozhen.* 17 (1983), no. 2, 70–72. 22E65 (22A25 81D15)
151. 85j:22037a Vershik, A. M.; Gelfand, I. M.; Graev, M. I. Commutative model of basic representation of the  $SL(2, R)^x$  group with respect to a unipotent subgroup. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint* 1982, no. 169, 20 pp. 22E65 (22A25 81D15)

152. 85g:53082 Gelfand, I. M.; Graev, M. I.; Rošu, R. The problem of integral geometry for  $p$ -dimensional planes in real projective space (the nonlocal variant). Operator algebras and group representations, Vol. I (Neptun, 1980), 192–207, Monogr. Stud. Math., 17, Pitman, Boston, MA, 1984. 53C65 (43A85)
153. 85f:58052 Gelfand, I. M.; Cherednik, I. V. Abstract Hamiltonian formalism for classical Yang-Baxter sheaves. (Russian) Uspekhi Mat. Nauk 38 (1983), no. 3(231), 3–21. 58F07 (82A05)
154. 85f:53061 Gelfand, I. M.; Smel'v, G. S. Geometric structures of double fibrations and their connection with certain problems of integral geometry. (Russian) Funktsional. Anal. i Prilozhen. 17 (1983), no. 2, 7–22. 53C65 (32L25 43A85)
155. 85e:58068 Gelfand, I. M.; Cherednik, I. V. Abstract Hamiltonian formalism for classical Yang-Baxter bundles. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1982, no. 208, 29 pp. 58F07 (81E10)
156. 85e:43016 Aĭrapetyan, R. G.; Gelfand, I. M.; Graev, M. I.; Oganesyan, G. R. Plancherel's formula for an integral transformation connected with a complex of straight lines intersecting an algebraic curve in  $C^3$  and  $CP^3$ . (Russian) Akad. Nauk Armyan. SSR Dokl. 75 (1982), no. 1, 9–15. 43A85 (32L25 32M10 53C65)
157. 85a:53055 Aĭrapetyan, R. G.; Gelfand, I. M.; Graev, M. I.; Oganesyan, G. R. Plancherel's theorem for the integral transformation connected with a complex of  $p$ -dimensional planes in  $CP^n$ . (Russian) Dokl. Akad. Nauk SSSR 268 (1983), no. 2, 265–268. 53C65 (43A85)
158. 84m:53070 Gelfand, I. M.; Graev, M. I. Integral transformations connected with two remarkable complexes in a projective space. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1982, no. 93, 24 pp. 53C65 (43A85)
159. 84i:58055 Gelfand, I. M.; Dorfman, I. Ya. Integrable equations of KdV-H. Dym type. (Russian) Current problems in mathematical physics and numerical mathematics, pp. 102–112, 336, "Nauka", Moscow, 1982. 58F07 (35Q20)
160. 84i:18001 Gelfand, I. M.; Ponomarev, V. A. Gabriel's theorem is also valid for representations of equipped graphs by relations. (Russian) Funktsional. Anal. i Prilozhen. 15 (1981), no. 2, 71–72. 18A99 (16A64)
161. 84e:58030 Gelfand, I. M.; Dorfman, I. Ya. Hamiltonian operators and the classical Yang-Baxter equation. (Russian) Funktsional. Anal. i Prilozhen. 16 (1982), no. 4, 1–9, 96. 58F06 (58H99 82A05)
162. 84d:53078 Gelfand, I. M.; Graev, M. I.; Roshu, R. Nonlocal inversion formulas in a problem of integral geometry, connected with  $p$ -dimensional planes in real projective space. (Russian) Funktsional. Anal. i Prilozhen. 16 (1982), no. 3, 49–51. 53C65 (43A85)
163. 84b:57014 Gelfand, I. M.; MacPherson, R. D. Geometry in Grassmannians and a generalization of the dilogarithm. Adv. in Math. 44 (1982), no. 3, 279–312. 57R20 (58A10)
164. 84b:01043 Agranovich, M. S.; Gelfand, I. M.; Dubinskii, Yu. A.; Oleinik, O. A.; Sobolev, S. L.; Shubin, M. A. Mark Iosifovich Vishik (on the occasion of his sixtieth birthday). (Russian) Uspekhi Mat. Nauk 37 (1982), no. 4(226), 213–220. 01A70

165. 83h:92015 Vasiliev, J. M.; Gelfand, I. M. Possible common mechanism of morphological and growth-related alterations accompanying neoplastic transformation. *Proc. Nat. Acad. Sci. U.S.A.* 79 (1982), no. 8, 2594–2597. 92A07
166. 83g:22002 Gelfand, I. M.; Graev, M. I.; Versik, A. M. Representations of the group of functions taking values in a compact Lie group. *Compositio Math.* 42 (1980/81), no. 2, 217–243. 22D12 (22E65 81C40)
167. 83g:01041 Bogolyubov, N. N.; Gelfand, I. M.; Dobrushin, R. L.; Kirillov, A. A.; Krein, M. G.; Leites, D. A.; Minlos, R. A.; Sinai, Ya. G.; Shubin, M. A. Feliks Aleksandrovich Berezin. Obituary. (Russian) *Uspekhi Mat. Nauk* 36 (1981), no. 4(220), 185–190. 01A70
168. 83f:43011 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Problems of integral geometry in an affine space connected with integration of functions along planes. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 152* (1979), 31 pp. 43A85 (53C65 81C40)
169. 83c:05113 Gelfand, I. M.; Ponomarev, V. A. Representations of graphs. Perfect subrepresentations. (Russian) *Funktional. Anal. i Prilozhen.* 14 (1980), no. 3, 14–31, 96. 05C99
170. 83a:43006 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. A problem of integral geometry in  $RP^n$ , connected with integration of differential forms. (Russian) *Funktional. Anal. i Prilozhen.* 13 (1979), no. 4, 64–66. 43A85 (53C65)
171. 82m:43017 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Integral geometry in affine and projective spaces. (Russian) Current problems in mathematics, Vol. 16 (Russian), pp. 53–226, 228, Akad. Nauk SSSR, Vsesoyuz. Inst. Nauchn. i Tekhn. Informatsii, Moscow, 1980. 43A85 (35C99 53C30 53C65 58A99 81E99)
172. 82j:58045 Gelfand, I. M.; Dorfman, I. Ja. Hamiltonian operators and infinite-dimensional Lie algebras. (Russian) *Funktional. Anal. i Prilozhen.* 15 (1981), no. 3, 23–40. 58F05 (49C99)
173. 82i:32058 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Some questions connected with the integration of differential forms along planes in  $RP^n$  and  $CP^n$ . (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 126* (1979), 26 pp. 32L99 (53C65 81E10)
174. 82h:53082 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Double fibrations and problems of integral geometry connected with the integration of differential forms over lines. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 60* (1979), 56 pp. 53C65 (57R30)
175. 82h:22011 Versik, A. M.; Gelfand, I. M.; Graev, M. I. Remarks on the representations of a group of functions with values in a compact Lie group. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 17* (1979), 35 pp. 22E65
176. 82g:53081 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Integral geometry for one-dimensional fibrations of a general form over  $RP^n$ . (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1980*, no. 60, 24 pp. 53C65 (32C10)
177. 82g:53080 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Integral geometry for certain one-dimensional fibrations over projective space. (Russian) *Akad. Nauk SSSR Inst. Prikl. Mat. Preprint 1980*, no. 24, 30 pp. 53C65 (32C10)

178. 82g:53079 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Problems of integral geometry in projective space that are connected with the integration of differential forms. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 79 (1979), 30 pp. 53C65 (32L05 81E99)
179. 82g:53078 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Problems of integral geometry connected with integration of differential forms over lines in a three-dimensional projective space. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 41 (1979), 50 pp. 53C65 (32L05 81E10)
180. 82g:53077 Gelfand, I. M.; Gindikin, S. G.; Graev, M. I. Problems of integral geometry connected with the integration of differential forms over straight lines in  $R^3$  and  $C^3$ . (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 24 (1979), 42 pp. 53C65 (57R30 58A10 81E10)
181. 82e:58039 Gelfand, I. M.; Dorfman, I. Ja. Schouten bracket and Hamiltonian operators. (Russian) Funktsional. Anal. i Prilozhen. 14 (1980), no. 3, 71–74. 58F05 (58F07)
182. 82e:53103 Gelfand, I. M.; Graev, M. I. Admissible  $n$ -dimensional complexes of curves in  $R^n$ . (Russian) Funktsional. Anal. i Prilozhen. 14 (1980), no. 4, 36–44, 95. 53C65 (14G30 81E10)
183. 82a:16030 Gelfand, I. M.; Ponomarev, V. A. Model algebras and representations of graphs. (Russian) Funktsional. Anal. i Prilozhen. 13 (1979), no. 3, 1–12. 16A64 (05C05)
184. 81i:58027 Gelfand, I. M.; Dikiĭ, L. A. A family of Hamiltonian structures connected with integrable nonlinear differential equations. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 136 (1978), 41 pp. 58F07
185. 81e:22026 Bernstein, Joseph; Gelfand, Isral; Gelfand, Serge Structure locale de la catgorie des modules de Harish-Chandra. (French) C. R. Acad. Sci. Paris Sr. A-B 286 (1978), no. 11, A495–A497. 22E47
186. 81c:58035 Gelfand, I. M.; Dorfman, I. Ja. Hamiltonian operators and algebraic structures associated with them. (Russian) Funktsional. Anal. i Prilozhen. 13 (1979), no. 4, 13–30, 96. 58F05 (70H15)
187. 81a:58025 Gelfand, I. M.; Dorfman, I. Ja. Hamiltonian operators and related algebraic structures. (Russian) Akad. Nauk SSSR Inst. Prikl. Mat. Preprint No. 84 (1979), 18 pp. 58F05
188. 80k:53100 Gelfand, I. M.; Gindikin, S. G.; Šapiro, Z. Ja. A local problem of integral geometry in a space of curves. (Russian) Funktsional. Anal. i Prilozhen. 13 (1979), no. 2, 11–31, 96. 53C65 (43A85 44A15)
189. 80i:58050 Gelfand, I. M.; Feigin, B. L.; Fuks, D. B. Cohomology of infinite-dimensional Lie algebras and Laplace operators. (Russian) Funktsional. Anal. i Prilozhen. 12 (1978), no. 4, 1–5. 58H10
190. 80i:58027 Gelfand, I. M.; Dikiĭ, L. A. Integrable nonlinear equations and the Liouville theorem. (Russian) Funktsional. Anal. i Prilozhen. 13 (1979), no. 1, 8–20, 96. 58F07 (34A05)

191. 80c:14010a Bernštejn, I. N.; Gelfand, I. M.; Gelfand, S. I. Algebraic vector bundles on  $P^n$  and problems of linear algebra. (Russian) *Funktsional. Anal. i Prilozhen.* 12 (1978), no. 3, 66–67. 14F05 (18F15)
192. 58 #28285 Bernštejn, I. N.; Gelfand, I. M.; Gelfand, S. I. Differential operators on the base affine space and a study of  $g$ -modules. Lie groups and their representations (Proc. Summer School, Bolyai Jnos Math. Soc., Budapest, 1971), pp. 21–64. Halsted, New York, 1975. 22E45
193. 58 #28257 Gelfand, I. M.; Graev, M. I.; Veršik, A. M. Representations of the group of smooth mappings of a manifold  $X$  into a compact Lie group. *Compositio Math.* 35 (1977), no. 3, 299–334. 22D12 (22E65 58D99)
194. 58 #22746 Gelfand, I. M.; Dikiĭ, L. A. Asymptotic properties of the resolvent of Sturm-Liouville equations, and the algebra of Korteweg-de Vries equations. (Russian) *Uspehi Mat. Nauk* 30 (1975), no. 5(185), 67–100. 34B25 (35Q99 58F05)
195. 58 #18561 Gelfand, I. M.; Dikiĭ, L. A. The calculus of jets and nonlinear Hamiltonian systems. (Russian) *Funkcional. Anal. i Priložen.* 12 (1978), no. 2, 8–23, 95. 58F05 (34B30)
196. 58 #16966 Bernstein, Joseph; Gelfand, Isral; Gelfand, Serge Structure locale de la catgorie des modules de Harish-Chandra. (French) *C. R. Acad. Sci. Paris Sr. A-B* 286 (1978), no. 10, A435–A437. 22E45 (17B35)
197. 58 #16779b Gelfand, I. M.; Ponomarev, V. A. Lattices, representations, and their related algebras. II. (Russian) *Uspehi Mat. Nauk* 32 (1977), no. 1(193), 85–106, 271. 16A64
198. 58 #16779a Gelfand, I. M.; Ponomarev, V. A. Lattices, representations, and their related algebras. I. (Russian) *Uspehi Mat. Nauk* 31 (1976), no. 5(191), 71–88. 16A64
199. 58 #11230 Gelfand, I. M.; Gindikin, S. G. Complex manifolds whose spanning trees are real semisimple Lie groups, and analytic discrete series of representations. (Russian) *Funkcional. Anal. i Priložen.* 11 (1977), no. 4, 19–27, 96. 22E45
200. 57 #7670 Gelfand, I. M.; Dikiĭ, L. A. A Lie algebra structure in the formal calculus of variations. (Russian) *Funkcional. Anal. i Priložen.* 10 (1976), no. 1, 18–25. 58F05 (35R99)
201. 56 #16265 Gelfand, I. M.; Gindikin, S. G. Nonlocal inversion formulas in real integral geometry. (Russian) *Funkcional. Anal. i Priložen.* 11 (1977), no. 3, 12–19, 96. 43A85 (44A25 53C65)
202. 56 #12180 Bernštejn, I. N.; Gelfand, I. M.; Gelfand, S. I. Models of representations of Lie groups. (Russian) *Trudy Sem. Petrovsk. Vyp.* 2 (1976), 3–21. 22E45
203. 56 #1359 Gelfand, I. M.; Dikiĭ, L. A. The resolvent, and Hamiltonian systems. (Russian) *Funkcional. Anal. i Priložen.* 11 (1977), no. 2, 11–27, 95. 58F05 (34B25 35Q99)
204. 55 #13505 Gelfand, I. M. The cohomology of infinite dimensional Lie algebras: some questions of integral geometry. Actes du Congrès International des Mathématiciens (Nice, 1970), Tome 1, pp. 95–111. Gauthier-Villars, Paris, 1971. 58H05 (57D25 22E45 43A55)

205. 55 #13486 Gelfand, I. M.; Manin, Ju. I.; Šubin, M. A. Poisson brackets and the kernel of the variational derivative in the formal calculus of variations. (Russian) *Funkcional. Anal. i Priložen.* 10 (1976), no. 4, 30–34. 58F05 (35Q99)
206. 55 #10602 Veršik, A. M.; Gelfand, I. M.; Graev, M. I. Representations of the group of smooth mappings of a manifold  $X$  into a compact Lie group. (Russian) *Dokl. Akad. Nauk SSSR* 232 (1977), no. 4, 745–748. 22D10 (58D05 22E65)
207. 55 #8786e Gelfand, I. M.; Graev, M. I.; Vilenkin, N. Ya. Generalized functions. Vol. 5. Integral geometry and representation theory. Translated from the Russian by Eugene Saletan. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1966 [1977]. xvii+449 pp. 46FXX
208. 55 #8786d Gelfand, I. M.; Vilenkin, N. Ya. Generalized functions. Vol. 4. Applications of harmonic analysis. Translated from the Russian by Amiel Feinstein. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1964 [1977]. xiv+384 pp. 46FXX
209. 55 #8786c Gelfand, I. M.; Shilov, G. E. Generalized functions. Vol. 3. Theory of differential equations. Translated from the Russian by Meinhard E. Mayer. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1967 [1977]. x+222 pp. 46FXX
210. 55 #8786b Gelfand, I. M.; Shilov, G. E. Generalized functions. Vol. 2. Spaces of fundamental and generalized functions. Translated from the Russian by Morris D. Friedman, Amiel Feinstein and Christian P. Peltzer. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1968 [1977]. x+261 pp. 46FXX
211. 55 #8786a Gelfand, I. M.; Shilov, G. E. Generalized functions. Vol. 1. Properties and operations. Translated from the Russian by Eugene Saletan. Academic Press [Harcourt Brace Jovanovich, Publishers], New York-London, 1964 [1977]. xviii+423 pp. 46FXX
212. 55 #6484 Gelfand, I. M.; Dikiĭ, L. A. Fractional powers of operators, and Hamiltonian systems. (Russian) *Funkcional. Anal. i Priložen.* 10 (1976), no. 4, 13–29. 58F05 (35Q99)
213. 55 #4201 Fuchs, D. B.; Gabrilov, A. M.; Gelfand, I. M. The Gauss-Bonnet theorem and the Atiyah-Patodi-Singer functionals for the characteristic classes of foliations. *Topology* 15 (1976), no. 2, 165–188. 57D30 (58A05 58G10)
214. 54 #6159 Gelfand, I. M.; Fuks, D. B. PL foliations. II. (Russian) *Funkcional. Anal. i Priložen.* 8 (1974), no. 3, 7–11. 57D30
215. 54 #1245 Gabrilov, A. M.; Gelfand, I. M.; Losik, M. V. Atiyah-Patodi-Singer functionals for the characteristic classes of a tangent bundle. (Russian) *Funkcional. Anal. i Priložen.* 10 (1976), no. 2, 13–28. 57D20 (58G10)
216. 54 #29 Aleksandrov, P. S.; Gelfand, I. M.; Kolmogorov, A. N.; Maĭkov, E. V.; Maslov, V. P.; Olešnik, O. A.; Sinař, Ja. G.; Smoljanov, O. G.; Tihomirov, V. M. In memory of Sergej Vasilevič Fomin. (Russian) *Uspehi Mat. Nauk* 31 (1976), no. 4(190), 199–212. (1 plate). 01A70

217. 53 #14504b Gabrilov, A. M.; Gelfand, I. M.; Losik, M. V. A local combinatorial formula for the first Pontrjagin class. (Russian) *Funkcional. Anal. i Priložen.* 10 (1976), no. 1, 14–17. 57D20
218. 53 #14504a Gabrilov, A. M.; Gelfand, I. M.; Losik, M. V. Combinatorial computation of characteristic classes. I, II. (Russian) *Funkcional. Anal. i Priložen.* 9 (1975), no. 2, 12–28; ibid. 9 (1975), no. 3, 5–26. 57D20
219. 53 #12836 Aleksandrov, P. S.; Gelfand, I. M.; Gorin, E. A.; Grušin, V. V.; Kolmogorov, A. N.; Oleňík, O. A.; Palamodov, V. P.; Fomīn, S. V. GeorgijEvgenievč Šilov. Obituary. (Russian) *Uspehi Mat. Nauk* 31 (1976), no. 1(187), 217–228. 01A70 (46-03)
220. 53 #8334 Gelfand, I. M.; Kajdan, D. A. Representations of the group  $GL(n, K)$  where  $K$  is a local field. Lie groups and their representations (Proc. Summer School, Bolyai Jnos Math. Soc., Budapest, 1971), pp. 95–118. Halsted, New York, 1975. 22E50 (10D20 12A65)
221. 53 #5393 Gelfand, I. M.; Ponomarev, V. A. Free modular lattices, and their representations. (Russian) Collection of articles dedicated to the memory of Ivan Georgievic Petrovskii(1901–1973), IV. *Uspehi Mat. Nauk* 29 (1974), no. 6(180), 3–58. 06A30
222. 53 #3188 Veršik, A. M.; Gelfand, I. M.; Graev, M. I. Representations of the group of diffeomorphisms. (Russian) *Uspehi Mat. Nauk* 30 (1975), no. 6(186), 1–50. 22D10 (58D05 28A65)
223. 52 #14147 Veršik, A. M.; Gelfand, I. M.; Graev, M. I. Representations of the group  $SL(2, R)$ , where  $R$  is a ring of functions. (Russian) *Uspehi Mat. Nauk* 28 (1973), no. 5(173), 83–128. 22D10
224. 52 #13876 Bernštejn, I. N.; Gelfand, I. M.; Ponomarev, V. A. Coxeter functors, and Gabriel’s theorem. (Russian) *Uspehi Mat. Nauk* 28 (1973), no. 2(170), 19–33. 15A03 (05C99 16A64)
225. 52 #7790 Berezanskiĭ, Ju. M.; Gelfand, I. M.; Levin, B. Ja.; Marčenko, V. A.; Maslov, K. V. Aleksandr Jakovlevič Povzner (on the occasion of his sixtieth birthday). (Russian) *Uspehi Mat. Nauk* 30 (1975), no. 5(185), 221–226. (1 plate). 01A70
226. 51 #8338 Gelfand, I. M.; Graev, M. I. Square roots of a quasiregular representation of the group  $SL(2, K)$ . (Russian) *Funkcional. Anal. i Priložen.* 9 (1975), no. 2, 64–66. 22E45 (20G05)
227. 51 #1839 Gabrilov, A. M.; Gelfand, I. M.; Losik, M. V. The combinatorial computation of characteristic classes. (Russian) *Funkcional. Anal. i Priložen.* 9 (1974), no. 1, 54–55. 57D20
228. 50 #9896 Gelfand, I. M.; Ponomarev, V. A. Problems of linear algebra and classification of quadruples of subspaces in a finite-dimensional vector space. Hilbert space operators and operator algebras (Proc. Internat. Conf., Tihany, 1970), pp. 163–237. Colloq. Math. Soc. Janos Bolyai, 5, North-Holland, Amsterdam, 1972. 15A03
229. 50 #8553 Gelfand, I. M.; Feigin, B. L.; Fuks, D. B. Cohomology of the Lie algebra of formal vector fields with coefficients in its dual space and variations of characteristic

- classes of foliations. (Russian) *Funkcional. Anal. i Priložen.* 8 (1974), no. 2, 13–29. 57D30 (58H05)
230. 50 #4598 Гелфанд, И. М. Лекции по линейной алгебре. (Russian) [Lectures on linear algebra] Fourth edition, augmented. Izdat. “Nauka”, Moscow, 1971. 271 pp. 15-01
231. 50 #530 Veršik, A. M.; Gelfand, I. M.; Graev, M. I. Irreducible representations of the group  $G^X$  and cohomology. (Russian) *Funkcional. Anal. i Priložen.* 8 (1974), no. 2, 67–69. 22A25
232. 49 #3958 Gelfand, I. M.; Fuks, D. B. PL foliations. (Russian) *Funkcional. Anal. i Priložen.* 7 (1973), no. 4, 29–37. 57C99 (57D30)
233. 48 #11405 Gelfand, I. M.; Každan, D. A. Representations of the group  $GL(n, K)$  where  $K$  is a local field. (Russian) *Funkcional. Anal. i Priložen.* 6 (1972), no. 4, 73–74. 22E50 (20G05)
234. 48 #3679 Mergeljan, S. N.; Gelfand, I. M.; Olešnik, O. A. Rafal Aramovič Aleksandrjan (on the occasion of his fiftieth birthday). (Russian) *Differencialnye Uravnenija* 9 (1973), 1543–1546. 01A70
235. 47 #1088 Gelfand, I. M.; Kalinin, D. I.; Fuks, D. B. The cohomology of the Lie algebra of Hamiltonian formal vector fields. (Russian) *Funkcional. Anal. i Priložen.* 6 (1972), no. 3, 25–29. 58H05
236. 46 #922 Gelfand, I. M.; Každan, D. A.; Fuks, D. B. Actions of infinite-dimensional Lie algebras. (Russian) *Funkcional. Anal. i Priložen.* 6 (1972), no. 1, 10–15. 58H05 (17B65 57F10)
237. 45 #7752 Gelfand, I. M.; Fuks, D. B. Cohomology of Lie algebras of vector fields with nontrivial coefficients. (Russian) *Funkcional. Anal. i Priložen.* 4 (1970), no. 3, 10–25. 57D25
238. 45 #2737 Gelfand, I. M.; Fuks, D. B. Cycles that represent cohomology classes of the Lie algebra of formal vector fields. (Russian) *Uspehi Mat. Nauk* 25 (1970), no. 5(155), 239–240. 57D95 (18H25 58F15)
239. 45 #18 Gelfand, I. M.; Kostjučenko, A. G.; Levitan, B. M.; Lopatinskii, Ja. B.; Sobolev, S. L.; Šilov, G. E. Zaid Ismaïlovič Halilov (on his sixtieth birthday). (Russian) *Uspehi Mat. Nauk* 26 (1971), no. 3(159), 221–224. (1 plate). 01A70
240. 44 #6430 Arnold, V. I.; Gelfand, I. M.; Manin, Ju. I.; Moišezon, B. G.; Novikov, S. P.; Šafarevič, I. R. Galina Nikolaevna Tjurina. Obituary. (Russian) *Uspehi Mat. Nauk* 26 1971 no. 1, 207–211. (1 plate). 01.50
241. 44 #6429 Aleksandrov, P. S.; Arnold, V. I.; Gelfand, I. M.; Kolmogorov, A. N.; Novikov, S. P.; Olešnik, O. A. Ivan Georgievich Petrovskii (on his seventieth birthday). (Russian) *Uspehi Mat. Nauk* 26 1971 no. 2, 3–24. 01.50 (35.00)
242. 44 #4792 Gelfand, I. M.; Fuks, D. B. Upper bounds for the cohomology of infinite-dimensional Lie algebras. (Russian) *Funkcional. Anal. i Priložen.* 4 1970 no. 4, 70–71. 57.70 (22.00)

243. 44 #4770 Gelfand, I. M.; Každan, D. A. Certain questions of differential geometry and the computation of the cohomologies of the Lie algebras of vector fields. (Russian) Dokl. Akad. Nauk SSSR 200 1971 269–272. 57.34
244. 44 #2762 Gelfand, I. M.; Ponomarev, V. A. Quadruples of subspaces of finite-dimensional vector space. (Russian) Dokl. Akad. Nauk SSSR 197 1971 762–765. 15.30
245. 44 #2248 Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of tangent vector fields of a smooth manifold. II. (Russian) Funkcional. Anal. i Priložen. 4 1970 no. 2, 23–31. 57.34
246. 44 #2247 Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of smooth vector fields. (Russian) Dokl. Akad. Nauk SSSR 190 1970 1267–1270. 57.34
247. 43 #6856 Gelfand, I. M.; Graev, M. I.; Šapiro, Z. Ja. Integral geometry in a projective space. (Russian) Funkcional. Anal. i Priložen 4 1970 no. 1, 14–32. 53.90
248. 43 #2162 Gelfand, I. M.; Graev, M. I.; Ponomarev, V. A. A classification of the linear representations of the group  $SL(2, C)$ . (Russian) Dokl. Akad. Nauk SSSR 194 1970 1002–1005. 22.57
249. 42 #3728 Gelfand, I. M.; Graev, M. I.; Šapiro, Z. Ja. An integral geometry problem connected with a pair of Grassmann manifolds. (Russian) Dokl. Akad. Nauk SSSR 193 1970 259–262. 53.85
250. 42 #1103 Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of formal vector fields. (Russian) Izv. Akad. Nauk SSSR Ser. Mat. 34 1970 322–337. 55.30 (57.00)
251. 41 #9243 Gelfand, I. M.; Miščenko, A. S. Quadratic forms over commutative group rings, and  $K$ -theory. (Russian) Funkcional. Anal. i Priložen 3 1969 no. 4, 28–33. 55.30 (20.00)
252. 41 #1067 Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of tangent vector fields of a smooth manifold. (Russian) Funkcional. Anal. i Priložen. 3 1969 no. 3, 32–52. 57.34
253. 40 #7279 Gelfand, I. M.; Ponomarev, V. A. Remarks on the classification of a pair of commuting linear transformations in a finite-dimensional space. (Russian) Funkcional. Anal. i Priložen. 3 1969 no. 4, 81–82. 15.30 (16.00)
254. 40 #6259 Guelfand, I. M.; Graev, M. I.; Vilenkin, N. Ja. Les distributions. Tome 5: Gomtrie intgrale et thorie des reprsentations. (French) Traduit du russe par S. Vasilach et G. Gussi. Monographies Universitaires de Mathmatiques, 34 Dunod, Paris 1970 xvi+552 pp. 46.40 (22.00)
255. 40 #6258 Gelfand, I. M.; Schilow, G. E. Verallgemeinerte Funktionen (Distributionen). II: Lineare topologische Rume. Rume von Grundfunktionen und verallgemeinerten Funktionen. (German) bersetzung aus dem Russischen von Gerhard Tesch. Zweite Auflage. Hochschulbcher fr Mathematik, Band 48 VEB Deutscher Verlag der Wissenschaften, Berlin 1969 xii+216 pp. 46.40
256. 39 #6348b Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of vector fields on a manifold. (Russian) Funkcional. Anal. i Priložen. 3 1969 no. 2, 87. 57.34

257. 39 #6348a Gelfand, I. M.; Fuks, D. B. Cohomologies of the Lie algebra of vector fields on the circle. (Russian) *Funkcional. Anal. i Prilozhen.* 2 1968 no. 4, 92–93. 57.34
258. 39 #6232 Gelfand, I. M.; Graev, M. I.; Šapiro, Z. Ja. Differential forms and integral geometry. (Russian) *Funkcional. Anal. i Prilozhen.* 3 1969 no. 2, 24–40. 53.90
259. 39 #2827 Gelfand, I. M.; Kirillov, A. A. Structure of the Lie sfield connected with a semisimple decomposable Lie algebra. (Russian) *Funkcional. Anal. i Prilozhen.* 3 1969 no. 1, 7–26. 17.30
260. 38 #6522 Gelfand, I. M.; Graev, M. I. Line complexes in the space  $C^n$ . (Russian) *Funkcional. Anal. i Prilozhen.* 2 1968 no. 3, 39–52. 53.90
261. 38 #4611 Gelfand, I. M.; Graev, M. I. Representations of quaternion groups over locally compact fields and function fields. (Russian) *Funkcional. Anal. i Prilozhen.* 2 1968 no. 1, 20–35. 22.60
262. 38 #2093 Gelfand, I. M.; Graev, M. I.; Pyatetskii-Shapiro, I. I. Representation theory and automorphic functions. Translated from the Russian by K. A. Hirsch W. B. Saunders Co., Philadelphia, Pa.-London-Toronto, Ont. 1969 xvi+426 pp. 10.20
263. 38 #716 Gelfand, I. M.; Fuks, D. B. Classifying spaces for principal bundles with Hausdorff bases. (Russian) *Dokl. Akad. Nauk SSSR* 181 1968 515–518. 55.50 (18.00)
264. 37 #5693 Gelfand, I. M.; Shilov, G. E. Generalized functions. Vol. 2. Spaces of fundamental and generalized functions. Translated from the Russian by Morris D. Friedman, Amiel Feinstein and Christian P. Peltzer Academic Press, New York-London 1968 x+261 pp. 46.40
265. 37 #5325 Gelfand, I. M.; Ponomarev, V. A. Indecomposable representations of the Lorentz group. (Russian) *Uspehi Mat. Nauk* 23 1968 no. 2 (140), 3–60. 22.57
266. 37 #5260 Gelfand, I. M.; Kirillov, A. A. The structure of the quotient sfield of the enveloping algebra of a semisimple Lie algebra. (Russian) *Dokl. Akad. Nauk SSSR* 180 1968 775–777. 17.30
267. 37 #4764 Gelfand, I. M.; Graev, M. I. Complexes of  $k$ -dimensional planes in the space  $C^n$  and Plancherel's formula for the group  $\mathrm{GL}(n, C)$ . (Russian) *Dokl. Akad. Nauk SSSR* 179 1968 522–525. 53.90 (22.00)
268. 37 #3814 Gelfand, I. M.; Graev, M. I. Irreducible representations of the Lie algebra of the group  $U(p, q)$ : Description of the discrete series of representations. (Russian) 1967 High Energy Phys. Theory Elem. Particles (Internat. School Theoret. Phys., Yalta, 1966) (Russian) pp. 216–226 "Naukova Dumka", Kiev 81.22 (22.00)
269. 37 #2253 Gelfand, I. M.; Fuks, D. B. The topology of noncompact Lie groups. (Russian) *Funkcional. Anal. i Prilozhen.* 1 1967 no. 4, 33–45. 57.32 (22.00)
270. 37 #2252b Gelfand, I. M.; Fuks, D. B. Topological invariants of noncompact Lie groups connected with infinite dimensional representations. (Russian) *Dokl. Akad. Nauk SSSR* 177 1967 763–766. 57.32 (22.00)

271. 37 #2252a Gelfand, I. M.; Fuks, D. B. Cohomology of Lie groups with real coefficients. (Russian) Dokl. Akad. Nauk SSSR 176 1967 24–27. 57.32 (22.00)
272. 36 #6552 Gelfand, I. M.; Ponomarev, V. A. The category of Harish-Chandra modules over the Lie algebra of the Lorentz group. (Russian) Dokl. Akad. Nauk SSSR 176 1967 243–246. 22.80
273. 36 #3725 Gelfand, I. M.; Graev, M. I.; Pjateckii-Šapiro, I. I. Теория представлений и автоморфные функции. (Russian) [Theory of representations and automorphic functions] Generalized functions, No. 6 Izdat. “Nauka”, Moscow 1966 512 pp. 10.20 (22.00)
274. 36 #2742 Gelfand, I. M.; Graev, M. I. Representations of the group of quaternions over a disconnected locally compact continuous field. (Russian) Dokl. Akad. Nauk SSSR 177 1967 17–20. 22.60
275. 36 #2739 Gelfand, I. M.; Ponomarev, V. A. A classification of the indecomposable infinitesimal representations of the Lorentz group. (Russian) Dokl. Akad. Nauk SSSR 176 1967 502–505. 22.57
276. 36 #506 Gelfand, I. M.; Shilov, G. E. Generalized functions. Vol. 3: Theory of differential equations. Translated from the Russian by Meinhard E. Mayer Academic Press, New York-London 1967 x+222 pp. 35.20 (46.00)
277. 35 #7123 Gelfand, I. M.; Vilenkin, N. Y. Les distributions. Tome 4: Applications de l’analyse harmonique. (French) Traduit du russe par G. Rideau. Collection Universitaire de Mathmatiques, No. 23 Dunod, Paris 1967 xii+376 pp. 46.40 (28.00)
278. 35 #3620 Gelfand, I. M.; Graev, M. I.; Šapiro, Z. Ja. Integral geometry on  $k$ -dimensional planes. (Russian) Funkcional. Anal. i Priložen 1 1967 15–31. 53.90
279. 34 #7731 Gelfand, I. M.; Kirillov, A. A. Sur les corps lis aux algbres enveloppantes des algbres de Lie. (French) Inst. Hautes tudes Sci. Publ. Math. No. 31 1966 5–19. 17.30 (22.60)
280. 34 #7726 Gelfand, I. M.; Graev, M. I.; Vilenkin, N. Ya. Generalized functions. Vol. 5: Integral geometry and representation theory. Translated from the Russian by Eugene Saletan Academic Press, New York-London 1966 xvii+449 pp. 22.65 (46.40)
281. 34 #4940 Gelfand, I.; Raikov, D.; Shilov, G. Commutative normed rings. Translated from the Russian, with a supplementary chapter Chelsea Publishing Co., New York 1964 306 pp. 46.00 (46.55)
282. 34 #4729 Gelfand, I. M.; Piatezkii-Shapiro, I. I. The Laplace operator on the Riemann surfaces and the theory of representation. 1963 Outlines Joint Sympos. Partial Differential Equations (Novosibirsk, 1963) pp. 87–88 Acad. Sci. USSR Siberian Branch, Moscow 35.96 (10.22)
283. 34 #4274 Gelfand, I. M. Лекции по линейной алгебре. (Russian) [Lectures on linear algebra] Third revised and augmented edition Izdat. “Nauka”, Moscow 1966 280 pp. 15.00

284. 34 #1450 Gelfand, I. M.; Graev, M. I. Finite-dimensional irreducible representations of the unitary and complete linear group and special functions associated with them. (Russian) Izv. Akad. Nauk SSSR Ser. Mat. 29 1965 1329–1356. 22.60
285. 33 #6565 Gelfand, I. M.; Graev, M. I.; Šapiro, Z. Ja. Integral geometry on manifolds of  $k$ -dimensional planes. (Russian) Dokl. Akad. Nauk SSSR 168 1966 1236–1238. 53.90
286. 33 #4183 Gelfand, I. M.; Graev, M. I. The structure of the ring of finite functions on the group of second-order unimodular matrices with elements belonging to a disconnected locally compact field. Dokl. Akad. Nauk SSSR 153 512–515 (Russian); translated as Soviet Math. Dokl. 4 1963 1697–1700. 22.60
287. 33 #4108 Gelfand, I. M.; Kirillov, A. A. On fields connected with the enveloping algebras of Lie algebras. (Russian) Dokl. Akad. Nauk SSSR 167 1966 503–505. 17.30 (16.46)
288. 31 #6118 Gelfand, I. M.; Wilenkin, N. J. Verallgemeinerte Funktionen (Distributionen). IV. Einige Anwendungen der harmonischen Analyse. Gelfandsche Raumtripel. (German) Hochschulbcher fr Mathematik, Band 50 VEB Deutscher Verlag der Wissenschaften, Berlin 1964 359 pp. 46.00
289. 31 #6001 Guelfand, I. M.; Chilov, G. E. Les distributions. Tome 3. Thorie des quations diffrentielles. (French) Traduit par Serge Vasilach Dunod, Paris 1965 xii+236 pp. 34.00
290. 31 #2033 Gelfand, I. M.; Pjateckii-Šapiro, I. I.; Fedorov, Ju. G. Determination of crystal structure by non-local search. (Russian) Dokl. Akad. Nauk SSSR 152 1963 1045–1048. 82.99
291. 31 #273 Gelfand, I. M. Automorphic functions and the theory of representations. 1963 Proc. Internat. Congr. Mathematicians (Stockholm, 1962) pp. 74–85 Inst. Mittag-Leffler, Djursholm 22.60 (10.23)
292. 30 #4152 Gel'fand, I. M.; Vilenkin, N. Ya. Generalized functions. Vol. 4: Applications of harmonic analysis. Translated by Amiel Feinstein Academic Press, New York - London, 1964 1964 xiv+384 pp. 46.00 (46.40)
293. 30 #1897 Bryzgalov, V. I.; Gelfand, I. M.; Pjateckii-Šapiro, I. I.; Cetlin, M. L. Homogeneous automata games and their simulation on digital computers. (Russian) Avtomat. i Telemeh. 25 1964 1572–1580. 94.40
294. 29 #6327 Gelfand, I. M.; Raikow, D. A.; Schilow, G. E. Kommutative normierte Algebren. (German) bersetzung und wissenschaftliche Redaktion von Helmut Boseck. Mathematische Forschungsberichte, XIII VEB Deutscher Verlag der Wissenschaften, Berlin 1964 xi+332 pp. 46.55 (46.00)
295. 29 #3869 Gel'fand, I. M.; Shilov, G. E. Generalized functions. Vol. I: Properties and operations. Translated by Eugene Saletan Academic Press, New York-London 1964 xviii+423 pp. 46.40
296. 29 #2643 Gelfand, I. M.; Schilow, G. E. Verallgemeinerte Funktionen (Distributionen). III. Einige Fragen zur Theorie der Differentialgleichungen. (German) Hochschulbcher fr Mathematik, Band 49 VEB Deutscher Verlag der Wissenschaften, Berlin 1964 195 pp. 46.40 (35.00)

297. 29 #2237 Gelfand, I. M.; Graev, M. I.; Pjateckii-Šapiro, I. I. Representations of adle groups. (Russian) Dokl. Akad. Nauk SSSR 156 1964 487–490. 22.60 (10.68)
298. 28 #4354 Guelfand, I. M.; Chilov, G. E. Les distributions. Tome 2: Espaces fondamentaux. (French) Traduit par Serge Vasilach. Collection Universitaire de Mathmatiques, XV Dunod, Paris 1964 xv + 258 pp. 46.40
299. 28 #3353 Gelfand, I. M.; Fomin, S. V. Calculus of variations. Revised English edition translated and edited by Richard A. Silverman Prentice-Hall, Inc., Englewood Cliffs, N.J. 1963 vii+232 pp. 49.00
300. 28 #3352 Gelfand, I. M.; Fomin, S. V. Вариационное исчисление. (Russian) [Variational calculus] Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1961 228 pp. 49.00
301. 28 #3324 Gelfand, I. M.; Graev, M. I.; Vilenkin, N. Ja. Обобщенные функции, Вып. 5. Интегральная геометрия и связанные с ней вопросы теории представлений. (Russian) [Generalized functions, No. 5. Integral geometry and related problems in the theory of representations] Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1962 656 pp. 46.00 (46.40)
302. 28 #3115 Gelfand, I. M.; Pjateckii-Šapiro, I. I. Automorphic functions and the theory of representations. (Russian) Trudy Moskov. Mat. Obšč. 12 1963 389–412. 22.60 (32.65)
303. 28 #1223 Gelfand, I. M.; Šilov, G. E. Categories of finite-dimensional spaces. (Russian) Vestnik Moskov. Univ. Ser. I Mat. Meh. 1963 1963 no. 4, 27–48. 18.10
304. 28 #1068 Gelfand, I. M.; Pjateckii-Šapiro, I. I.; Cetlin, M. L. On certain classes of games and robot games. (Russian) Dokl. Akad. Nauk SSSR 152 1963 845–848. 90.70
305. 27 #5864 Gelfand, I. M.; Graev, M. I. Representations of the group of second-order matrices with elements in a locally compact field and special functions on locally compact fields. (Russian) Uspehi Mat. Nauk 18 1963 no. 4 (112), 29–99. 22.60 (22.57)
306. 27 #3921 Gelfand, I. M. Some problems in the theory of quasilinear equations. Amer. Math. Soc. Transl. (2) 29 1963 295–381. 35.00
307. 27 #2586 Gelfand, I. M.; Pjateckii-Šapiro, I. I. Unitary representations in the space  $G/\Gamma$ , where  $G$  is a group of real matrices of order  $n$  and  $\Gamma$  is a subgroup of integral matrices. (Russian) Dokl. Akad. Nauk SSSR 147 1962 275–278. 22.60 (22.65)
308. 27 #2585 Gelfand, I. M.; Graev, M. I. Irreducible unitary representations of the group of second-order unimodular matrices with elements in a locally compact field. (Russian) Dokl. Akad. Nauk SSSR 149 1963 499–501. 22.60
309. 27 #1910 Berezin, F. A.; Gelfand, I. M. Some remarks on the theory of spherical functions on symmetric Riemannian manifolds. Amer. Math. Soc. Transl. (2) 21 1962 193–238. 22.65 (22.60)
310. 27 #1840 Gelfand, I. M.; Pyateckii-Šapiro, I. I. Theory of representations and theory of automorphic functions. Amer. Math. Soc. Transl. (2) 26 1963 173–200. 46.90 (22.00)
311. 27 #1694 Gelfand, I. M. Some questions of analysis and differential equations. Amer. Math. Soc. Transl. (2) 26 1963 201–219. 35.00 (57.50)

312. 27 #1538 Gelfand, I. M.; Graev, M. I. The Plancherel formula for the group of unimodular matrices of second order with elements in a locally compact field. (Russian) Dokl. Akad. Nauk SSSR 151 1963 262–264. 22.60
313. 26 #6765 Gelfand, I. M.; Schilow, G. E. Verallgemeinerte Funktionen (Distributionen). II: Lineare topologische Rume. Rume von Grundfunktionen und verallgemeinerten Funktionen. (German) Hochschulbcher fr Mathematik, Bd. 48 VEB Deutscher Verlag der Wissenschaften, Berlin 1962 xii+216 pp. 46.40 (46.01)
314. 26 #6306 Gelfand, I. M.; Graev, M. I. An application of the horisphere method to the spectral analysis of functions in real and imaginary Lobatchevsky spaces. (Russian) Trudy Moskov. Mat. Obšč. 11 1962 243–308. 22.65
315. 26 #6271 Gelfand, I. M.; Graev, M. I. Construction of irreducible representations of simple algebraic groups over a finite field. (Russian) Dokl. Akad. Nauk SSSR 147 1962 529–532. 20.80
316. 26 #4173 Gelfand, I. M.; Vilenkin, N. Ja. Обобщенные функции, Вып. 4. Некоторые применения гармонического анализа. Оснащенные гильбертовы пространства. (Russian) [Generalized functions, No. 4. Some applications of harmonic analysis. Equipped Hilbert spaces] Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1961 472 pp. 46.00
317. 26 #1903 Gelfand, I. M. Integral geometry and its relation to the theory of representations. (Russian) Uspehi Mat. Nauk 15 no. 2 (92) 155–164; translated as Russian Math. Surveys 15 1960 no. 2, 143–151. 22.65 (22.60)
318. 26 #260 Gelfand, I. M.; Pjateckii-Šapiro, I. I. Unitary representations in uniform spaces with discrete stationary group. (Russian) Dokl. Akad. Nauk SSSR 147 1962 17–20. 22.60 (22.65)
319. 26 #237 Gelfand, I. M.; Graev, M. I. Categories of group representations and the classification problem of irreducible representations. (Russian) Dokl. Akad. Nauk SSSR 146 1962 757–760. 20.80
320. 25 #1081 Gelfand, I. M.; Cetlin, M. L. Some control methods for complex systems. (Russian) Uspehi Mat. Nauk 17 1962 no. 1, 3–25. 93.40 (92.10)
321. 25 #545 Gelfand, I. M.; Graev, M. I. Integral transformations connected with line complexes in a complex affine space. (Russian) Dokl. Akad. Nauk SSSR 138 1961 1266–1269. 53.90 (22.70)
322. 24 #B1739 Gelfand, I. M.; Frolov, A. S.; Čencov, N. N. The computation of continuous integrals by the Monte Carlo method. (Russian) Izv. Vysš. Učebn. Zaved. Matematika 1958 1958 no. 5 (6), 32–45. 65.15
323. 24 #A2235 Guelfand, I. M.; Chilov, G. E. Les distributions. (French) Traduit par G. Rideau. Collection Universitaire de Mathmatiques, VIII Dunod, Paris 1962 vii+376 pp. 46.40
324. 23 #B2155 Gelfand, I. M.; Cetlin, M. L. The principle of nonlocal search in automatic optimization systems. Dokl. Akad. Nauk SSSR 137 295–298 (Russian); translated as Soviet Physics Dokl. 6 1961 192–194. 65.30

325. 23 #A4014 Ghelfand, I. M. Integral geometry and its relation to the theory of representations. (Romanian) Acad. R. P. Romne An. Romno-Soviet. Ser. Mat.-Fiz. (3) 15 1961 no. 2 (37), 82–91. 22.60 (46.40)
326. 23 #A4013 Gelfand, I. M.; Graev, M. I. Geometry of homogeneous spaces, representations of groups in homogeneous spaces and related questions of integral geometry. I. (Russian) Trudy Moskov. Mat. Obšč. 8 (1959), 321–390; addendum 9 1959 562. 22.60 (46.40)
327. 23 #A3899 Gelfand, I. M. On elliptic equations. (Romanian) Acad. R. P. Romne An. Romno-Soviet. Ser. Mat.-Fiz. (3) 15 1961 no. 1 (36), 3–15. 35.44
328. 23 #A3431 Gelfand, I. M.; Graev, M. I. Integrals over hyperplanes of basic and generalized functions. Dokl. Akad. Nauk SSSR 135 1307–1310 (Russian); translated as Soviet Math. Dokl. 1 1960 1369–1372. 44.30 (22.65)
329. 23 #A1242 Gelfand, I. M.; Raikov, D. A.; Šilov, G. E. Коммутативные нормированные кольца. (Russian) [Commutative normed rings] Sovremennye Problemy Matematiki Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1960 316 pp. 46.55
330. 23 #A1238 Gelfand, I. M.; Graev, M. I. Expansion, in irreducible representations, of representations of the Lorentz group in spaces of functions given on symmetric spaces. (Russian) Dokl. Akad. Nauk SSSR 127 1959 250–253. 46.80 (22.00)
331. 23 #A416 Gelfand, I. M. On elliptic equations. Uspehi Mat. Nauk 15 no. 3 (93) 121–132. (Russian); translated as Russian Math. Surveys 15 1960 no. 3, 113–123. 35.44
332. 23 #A152 Gelfand, I. M. Lectures on linear algebra. Translated from the revised second Russian edition by A. Shenitzer Interscience Tracts in Pure and Applied Mathematics, No. 9. Interscience Publishers, New York-London 1961 ix+185 pp. 15.00
333. 22 #12295 Ghelfand, I. M. Some questions of analysis and differential equations. (Romanian) Acad. R. P. Romne. An. Romno-Soviet. Ser. Mat.-Fiz. (3) 14 1960 no. 1 (32), 3–19. 35.00
334. 22 #12294 Gelfand, I. M. Some questions of analysis and differential equations. (Russian) Uspehi Mat. Nauk 14 1959 no. 3 (87), 3–19. 35.00 (46.00)
335. 22 #9876 Gelfand, I. M.; Graev, M. I. Fourier transforms of rapidly decreasing functions on complex semisimple groups. Dokl. Akad. Nauk SSSR 131 496–499 (Russian); translated as Soviet Math. Dokl. 1 1960 276–279. 46.00 (22.00)
336. 22 #9872 Ghelfand, I. M.; Peatetki-Sapiro, I. I. Theory of representations of groups and theory of automorphic functions. (Romanian) Acad. R. P. Romne An. Romno-Soviet. Ser. Mat.-Fiz. (3) 14 1960 no. 2 (33), 60–84. 46.00 (30.00)
337. 22 #9316 Gelfand, I. M.; Cetlin, M. L. Continuous models of control systems. Dokl. Akad. Nauk SSSR 131 1242–1245 (Russian); translated as Soviet Math. Dokl. 1 1960 409–412. 92.00
338. 22 #8389 Gelfand, I. M. On the subrings of a ring of continuous functions. Amer. Math. Soc. Transl. (2) 16 1960 477–479. 46.00

339. 22 #8367 Berezin, F. A.; Gelfand, I. M.; Graev, M. I.; Nařmark, M. A. Group representations. Amer. Math. Soc. Transl. (2) 16 1960 325–353. 46.00 (22.00)
340. 22 #8366 Gelfand, I. M. On some problems of functional analysis. Amer. Math. Soc. Transl. (2) 16 1960 315–324. 46.00
341. 22 #5889 Gelfand, I. M.; Schilow, G. E. Verallgemeinerte Funktionen (Distributionen). I: Verallgemeinerte Funktionen und das Rechnen mit ihnen. (German) Hochschulbcher fr Mathematik, Bd. 47 VEB Deutscher Verlag der Wissenschaften, Berlin 1960 364 pp. 46.00
342. 22 #5694 Gelfand, I. M.; Minlos, R. A.; Šapiro, Z. Ja. Представления группы вращени и группы Лоренца, их применения. (Russian) [Representations of the rotation group and of the Lorentz group, and their applications] Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1958 368 pp. 22.00
343. 22 #4574a Gelfand, I. M.; Yaglom, A. M. Calculation of the amount of information about a random function contained in another such function. Amer. Math. Soc. Transl. (2) 12 1959 199–246. 94.00
344. 22 #3987 Gelfand, I. M. The structure of a ring of rapidly decreasing functions of a Lie group. (Russian) Dokl. Akad. Nauk SSSR 124 1959 19–21. 46.00
345. 22 #3455 Gelfand, I. M.; Jaglom, A. M. Integration in functional spaces and its applications in quantum physics. J. Mathematical Phys. 1 1960 48–69. 81.00
346. 22 #2912 Gelfand, I. M.; Pjateckii-Šapiro, I. I. Theory of representations and theory of automorphic functions. (Russian) Uspehi Mat. Nauk 14 1959 no. 2 (86), 171–194. 46.00 (30.00)
347. 22 #2849 Gelfand, I. M.; Sya, Do-šin On positive definite distributions. (Russian) Uspehi Mat. Nauk 15 1960 no. 1 (91), 185–190. 42.00 (46.00)
348. 22 #1737 Ghelfand, I. M. Some problems of the theory of quasilinear equations. (Romanian) Acad. R. P. Romne. An. Romno-Soviet. Ser. Mat.-Fiz. (3) 13 1959 no. 4(31), 5–83. 35.00
349. 22 #1736 Gelfand, I. M. Some problems in the theory of quasi-linear equations. (Russian) Uspehi Mat. Nauk 14 1959 no. 2 (86), 87–158. 35.00
350. 21 #6460 Gelfand, I. M.; Pjateckii-Šapiro, I. I. A theorem of Poincar. (Russian) Dokl. Akad. Nauk SSSR 127 1959 490–493. 34.00 (54.00)
351. 21 #5142b Gelfand, I. M.; Silov, G. E. Некоторые вопросы теории дифференциальных уравнений. (Russian) [Some questions in the theory of differential equations] Obobščennye funkci, Vypusk 3 Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1958 274 pp. 46.00 (35.00)
352. 21 #5142a Gelfand, I. M.; Šilov, G. E. Пространства основных и обобщенных функций. (Russian) [Spaces of fundamental and generalized functions] Obobščennye funkci, Vypusk 2 Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1958 307 pp. 46.00 (35.00)

353. 21 #282 Gelfand, I. M. On some problems of functional analysis. (Romanian) Acad. R. P. Romne. An. Romno-Soviet. Ser. Mat.-Fiz. (3) 11 1957 no. 3 (22), 58–67 (multigraphed). 46.00 (35.00)
354. 20 #5097 Gelfand, I. M.; Jaglom, A. M. ber die Berechnung der Menge an Information ber eine zuflige Funktion, die in einer anderen zufligen Funktion enthalten ist. (German) 1958 Arbeiten zur Informationstheorie, II pp. 7–56 Mathematische Forschungsberichte. VI VEB Deutscher Verlag der Wissenschaften, Berlin 94.00
355. 20 #5096 Gelfand, I. M.; Kolmogoroff, A. N.; Jaglom, A. M. Zur allgemeinen Definition der Information. (German) 1958 Arbeiten zur Informationstheorie, II pp. 57–60 Mathematische Forschungsberichte. VI VEB Deutscher Verlag der Wissenschaften, Berlin 94.00
356. 20 #4182 Gelfand, I. M.; Šilov, G. E. Обобщенные функции и действия над ними. (Russian) [Generalized functions and operations on them] Obobščennye funkci, Vypusk 1. Generalized functions, part 1. Gosudarstv. Izdat. Fiz.-Mat. Lit., Moscow 1958 440 pp. 46.00
357. 20 #1925 Gelfand, I. Some aspects of functional analysis and algebra. 1957 Proceedings of the International Congress of Mathematicians, Amsterdam, 1954, Vol. 1 pp. 253–276 Erven P. Noordhoff N.V., Groningen; North-Holland Publishing Co., Amsterdam 46.00 (22.00)
358. 20 #1061 Gelfand, I. M.; Šapiro, Z. Ya. Homogeneous functions and their extensions. Amer. Math. Soc. Transl. (2) 8 1958 21–85. 35.00 (26.00)
359. 19,1181a Gelfand, I. M.; Graev, M. I. Analogue of the Plancherel formula for the classical groups. American Mathematical Society Translations, Ser. 2, Vol. 9, pp. 123–154. American Mathematical Society, Providence, R.I., 1958. 17.0X
360. 19,960b Gelfand, I. M.; Lidskiĭ, V. B. On the structure of the regions of stability of linear canonical systems of differential equations with periodic coefficients. Amer. Math. Soc. Transl. (2) 8 (1958), 143–181. 34.0X
361. 19,662c Berezin, F. A.; Gelfand, I. M.; Graev, M. I.; Nařmark, M. A. Representation of groups. (Russian) Uspehi Mat. Nauk (N.S.) 11 (1956), no. 6(72), 13–40. 22.0X
362. 19,293e Gelfand, I. M. On some problems of functional analysis. (Russian) Uspehi Mat. Nauk (N.S.) 11 (1956), no. 6(72), 3–12. 46.1X
363. 19,152f Berezin, F. A.; Gelfand, I. M. Some remarks on the theory of spherical functions on symmetric Riemannian manifolds. (Russian) Trudy Moskov. Mat. Obšč. 5 (1956), 311–351. 17.0X
364. 19,13g Gelfand, I. M.; Neumark, M. A. Unitre Darstellungen der klassischen Gruppen. (German) Akademie-Verlag, Berlin, 1957. XL+333 pp. 20.0X
365. 18,980g Gelfand, I. M.; Yaglom, A. M. Computation of the amount of information about a stochastic function contained in another such function. (Russian) Uspehi Mat. Nauk (N.S.) 12 (1957), no. 1(73), 3–52. 94.0X
366. 18,913a Gelfand, I. M. On subrings of the ring of continuous functions. (Russian) Uspehi Mat. Nauk (N.S.) 12 (1957), no. 1(73), 249–251. 46.2X

367. 18,859e Gelfand, I. M.; Kolmogorov, A. N.; Yaglom, A. M. On the general definition of the amount of information. (Russian) Dokl. Akad. Nauk SSSR (N.S.) 111 (1956), 745–748. 94.0X
368. 18,736a Gelfand, I. M.; Šilov, G. E. Fourier transforms of rapidly increasing functions and questions of the uniqueness of the solution of Cauchy's problem. Amer. Math. Soc. Transl. (2) 5 (1957), 221–274. 44.0X
369. 18,714h Gelfand, I. M.; Raĭkov, D. A.; Šilov, G. E. Commutative normed rings. Amer. Math. Soc. Transl. (2) 5 (1957), 115–220. 09.3X
370. 18,493a Gelfand, I. M.; Šilov, G. E. Quelques applications de la théorie des fonctions généralisées. (French) J. Math. Pures Appl. (9) 35 (1956), 383–413. 46.1X
371. 18,129f Gelfand, I. M. On identities for eigenvalues of a differential operator of second order. (Russian) Uspehi Mat. Nauk (N.S.) 11 (1956), no. 1(67), 191–198. 34.0X
372. 17,1261c Gelfand, I. M.; Yaglom, A. M. Integration in function spaces and its application to quantum physics. (Russian) Uspehi Mat. Nauk (N.S.) 11 (1956), no. 1(67), 77–114. 81.0X
373. 17,980j Gelfand, I. M.; Yaglom, A. M. Methods of the theory of random processes in quantum physics. (Russian) Vestnik Leningrad. Univ. 11 (1956), no. 1, 33–34. 60.0X
374. 17,876a Gelfand, I. M.; Graev, M. I. Unitary representations of the real unimodular group (principal nondegenerate series). Amer. Math. Soc. Transl. (2) 2 (1956), 147–205. 17.0X
375. 17,875d Gelfand, I. M.; Šapiro, Z. Ya. Representations of the group of rotations of 3-dimensional space and their applications. Amer. Math. Soc. Transl. (2) 2 (1956), 207–316. 17.0X
376. 17,514e Gelfand, I. M.; Fomin, S. V. Geodesic flows on manifolds of constant negative curvature. Amer. Math. Soc. Transl. (2) 1 (1955), 49–65. 46.2X
377. 17,489c Gelfand, I. M.; Levitan, B. M. On the determination of a differential equation from its spectral function. Amer. Math. Soc. Transl. (2) 1 (1955), 253–304. 34.0X
378. 17,482g Gelfand, I. M.; Lidskiĭ, V. B. On the structure of the regions of stability of linear canonical systems of differential equations with periodic coefficients. (Russian) Uspehi Mat. Nauk (N.S.) 10 (1955), no. 1(63), 3–40. 34.0X
379. 17,388g Gelfand, I. M.; Kostyučenko, A. G. Expansion in eigenfunctions of differential and other operators. (Russian) Dokl. Akad. Nauk SSSR (N.S.) 103 (1955), 349–352. 46.2X
380. 17,371c Gelfand, I. M.; Šapiro, Z. Ya. Homogeneous functions and their extensions. (Russian) Uspehi Mat. Nauk (N.S.) 10 (1955), no. 3(65), 3–70. 35.0X
381. 17,267f Gelfand, I. M.; Šilov, G. E. On a new method in uniqueness theorems for solution of Cauchy's problem for systems linear partial differential equations. (Russian) Dokl. Akad. Nauk SSSR (N.S.) 102 (1955), 1065–1068. 35.0X
382. 17,173e Gelfand, I. M.; Graev, M. I. Analogue of the Plancherel formula for the classical groups. (Russian) Trudy Moskov. Mat. Obšč. 4 (1955), 375–404. 17.0X

383. 16,938f Gelfand, I. M. Generalized random processes. (Russian) Dokl. Akad. Nauk SSSR (N.S.) 100, (1955). 853–856. 60.0X
384. 16,795c Gelfand, I. M.; Graev, M. I. Traces of unitary representations of the real unimodular group. (Russian) Dokl. Akad. Nauk SSSR (N.S.) 100, (1955). 1037–1040. 20.0X
385. 16,315d Gelfand, I. M.; Minlos, R. A. Solution of the quantum field equations. Morris D. Friedman, Two Pine Street, West Concord, Mass., 1954. 6 pp. (mimeographed). 81.0X
386. 16,100d Gelfand, I. M.; Minlos, R. A. Solution of the quantum field equations. (Russian) Doklady Akad. Nauk SSSR (N.S.) 97, (1954). 209–212. 81.0X
387. 15,867e Gelfand, I. M.; Šilov, G. E. Fourier transforms of rapidly increasing functions and questions of uniqueness of the solution of Cauchy's problem. (Russian) Uspehi Matem. Nauk (N.S.) 8, (1953). no. 6(58), 3–54. 42.4X
388. 15,683c Gelfand, I. M.; Graev, M. I. Analogue of the Plancherel formula for real semisimple Lie groups. (Russian) Doklady Akad. Nauk SSSR (N.S.) 92, (1953). 461–464. 20.0X
389. 15,601a Gelfand, I. M.; Graev, M. I. On a general method of decomposition of the regular representation of a Lie group into irreducible representations. (Russian) Doklady Akad. Nauk SSSR (N.S.) 92, (1953). 221–224. 20.0X
390. 15,199a Gelfand, I. M.; Graev, M. I. Unitary representations of the real unimodular group (principal nondegenerate series). (Russian) Izvestiya Akad. Nauk SSSR. Ser. Mat. 17, (1953). 189–248. 20.0X
391. 15,33a Gelfand, I. M.; Levitan, B. M. On a simple identity for the characteristic values of a differential operator of the second order. (Russian) Doklady Akad. Nauk SSSR (N.S.) 88, (1953). 593–596. 36.0X
392. 14,1091a Gelfand, I. M. On the spectrum of non-self-adjoint differential operators. (Russian) Uspehi Matem. Nauk (N.S.) 7, (1952). no. 6(52), 183–184. 36.0X
393. 14,660f Gelfand, I. M.; Fomin, S. V. Geodesic flows on manifolds of constant negative curvature. (Russian) Uspehi Matem. Nauk (N.S.) 7, (1952). no. 1(47), 118–137. 46.3X
394. 14,448a Gelfand, I. M.; Graev, M. I. Unitary representations of real simple Lie groups. (Russian) Doklady Akad. Nauk SSSR (N.S.) 86, (1952). 461–463. 20.0X
395. 14,352b Gelfand, I. M.; Naĭmark, M. A. Unitary representations of a unimodular group containing an identity representation of the unitary subgroup. (Russian) Trudy Moskov. Mat. Obšč. 1, (1952). 423–475. 20.0X
396. 14,289c Gelfand, I. M. Remark on the work of N. K. Bari, "Biorthogonal systems and bases in Hilbert space." (Russian) Moskov. Gos. Univ. Učenye Zapiski Matematika 148(4), (1951). 224–225. 46.3X
397. 13,911b Gelfand, I. M.; Šapiro, Z. Ya. Representations of the group of rotations in three-dimensional space and their applications. (Russian) Uspehi Matem. Nauk (N.S.) 7, (1952). no. 1(47), 3–117. 20.0X

398. 13,724a Gelfand, I. M.; Naĭmark, M. A. Unitary representations of semisimple Lie groups. I. Amer. Math. Soc. Translation 1952, (1952). no. 64, 42 pp. 20.0X
399. 13,722f Gelfand, I. M.; Naĭmark, M. A. Unitarnye predstavleniya klassičeskikh grupp. (Russian) [Unitary representations of the classical groups.] Trudy Mat. Inst. Steklov., vol. 36, Izdat. Nauk SSSR, Moscow-Leningrad, 1950. 288 pp. 20.0X
400. 13,558f Gelfand, I. M.; Levitan, B. M. On the determination of a differential equation from its spectral function. (Russian) Izvestiya Akad. Nauk SSSR. Ser. Mat. 15, (1951). 309–360. 36.0X
401. 13,473e Gelfand, I. M.; Fomin, S. V. Unitary representations of Lie groups and geodesic flows on surfaces of constant negative curvature. (Russian) Doklady Akad. Nauk SSSR (N.S.) 76, (1951). 771–774. 46.3X
402. 13,240f Gelfand, I. M.; Levitan, B. M. On the determination of a differential equation by its spectral function. (Russian) Doklady Akad. Nauk SSSR (N.S.) 77, (1951). 557–560. 36.0X
403. 13,99g Gelfand, I. M. Lekcii po lineĭnoĭ algebre. (Russian) [Lectures on Linear Algebra]] 2d ed. Gosudarstv. Izdat. Tehn.-Teor. Lit., Moscow-Leningrad, 1951. 252 pp. 09.0X
404. 12,503a Gelfand, I. M. Expansion in characteristic functions of an equation with periodic coefficients. (Russian) Doklady Akad. Nauk SSSR (N.S.) 73, (1950). 1117–1120. 36.0X
405. 12,9j Gelfand, I. M.; Cetlin, M. L. Finite-dimensional representations of the group of unimodular matrices. (Russian) Doklady Akad. Nauk SSSR (N.S.) 71, (1950). 825–828. 20.0X
406. 12,9i Gelfand, I. M.; Naĭmark, M. A. The relation between the unitary representations of the complex unimodular group and its unitary subgroup. (Russian) Izvestiya Akad. Nauk SSSR. Ser. Mat. 14, (1950). 239–260. 20.0X
407. 11,639e Gelfand, I. M.; Cetlin, M. L. Finite-dimensional representations of groups of orthogonal matrices. (Russian) Doklady Akad. Nauk SSSR (N.S.) 71, (1950). 1017–1020. 20.0X
408. 11,498b Gelfand, I. M. Spherical functions in symmetric Riemann spaces. (Russian) Doklady Akad. Nauk SSSR (N.S.) 70, (1950). 5–8. 20.0X
409. 11,498a Gelfand, I. M. The center of an infinitesimal group ring. (Russian) Mat. Sbornik N.S. 26(68), (1950). 103–112. 20.0X
410. 10,591b Gelfand, I. M.; Naĭmark, M. A. The trace in fundamental and supplementary series of representations of the complex unimodular group. (Russian) Doklady Akad. Nauk SSSR (N.S.) 61, (1948). 9–11. 20.0X
411. 10,584c Gelfand, I. M.; Yaglom, A. M. Charge conjugation for general Lorentz invariant equations. (Russian) Akad. Nauk SSSR. Zhurnal Eksper. Teoret. Fiz. 18, (1948). 1105–1111. 81.0X
412. 10,584b Gelfand, I. M.; Yaglom, A. M. Pauli's theorem for general Lorentz invariant equations. (Russian) Akad. Nauk SSSR. Zhurnal Eksper. Teoret. Fiz. 18, (1948). 1096–1104. 81.0X

413. 10,584a Gelfand, I. M.; Yaglom, A. M. On Lorentz invariant equations to which correspond a definite charge and a definite energy. (Russian) Doklady Akad. Nauk SSSR (N.S.) 63, (1948). 371–374. 81.0X
414. 10,583e Gelfand, I. M.; Yaglom, A. M. General Lorentz invariant equations and infinite-dimensional representations of the Lorentz group. (Russian) Akad. Nauk SSSR. Zhurnal Eksper. Teoret. Fiz. 18, (1948). 703–733. 81.0X
415. 10,429f Gelfand, I. M.; Nařmark, M. A. The analogue of Plancherel's formula for the complex unimodular group. (Russian) Doklady Akad. Nauk SSSR (N.S.) 63, (1948). 609–612. 20.0X
416. 10,282b Gelfand, I. M.; Nařmark, M. A. On the connection between the representations of a complex semi-simple Lie group and those of its maximal compact subgroups. (Russian) Doklady Akad. Nauk SSSR (N.S.) 63, (1948). 225–228. 20.0X
417. 10,258a Gelfand, I. M.; Rařkov, D. A.; Šilov, G. E. Commutative normed rings. (Russian) Uspehi Matem. Nauk (N. S.) 1, (1946). no. 2(12), 48–146. 46.3X
418. 10,199a Gelfand, I. M.; Nařmark, M. A. Normed rings with involutions and their representations. (Russian) Izvestiya Akad. Nauk SSSR. Ser. Mat. 12, (1948). 445–480. 46.3X
419. 9,496a Gelfand, I. M.; Yaglom, A. M. General Lorentz invariant equations and infinite representations of the Lorentz group. (Russian) Doklady Akad. Nauk SSSR (N.S.) 59, (1948). 655–658. 20.0X
420. 9,495a Gelfand, I. M.; Nařmark, M. A. Unitary representations of the Lorentz group. (Russian) Izvestiya Akad. Nauk SSSR. Ser. Mat. 11, (1947). 411–504. 20.0X
421. 9,329a Gelfand, I. M.; Nařmark, M. A. Supplementary and degenerate series of representations of the complex unimodular group. (Russian) Doklady Akad. Nauk SSSR (N.S.) 58, (1947). 1577–1580. 20.0X
422. 9,328c Gelfand, I. M.; Nařmark, M. A. Unitary representations of semisimple Lie groups. I. (Russian) Mat. Sbornik N.S. 21(63), (1947). 405–434. 20.0X
423. 9,7e Gelfand, I.; Neumark, M. The principal series of irreducible representations of the complex unimodular group. C. R. (Doklady) Acad. Sci. URSS (N.S.) 56, (1947). 3–4. 20.0X
424. 8,563c Gelfand, I.; Neumark, M. Unitary representations of the group of linear transformations of the straight line. C. R. (Doklady) Acad. Sci. URSS (N.S.) 55, (1947). 567–570. 20.0X
425. 8,438a Gelfand, I. M.; Neumark, M. A. On unitary representations of the complex unimodular group. C. R. (Doklady) Acad. Sci. URSS (N.S.) 54, (1946). 195–198. 20.0X
426. 8,132b Gelfand, I.; Neumark, M. Unitary representations of the Lorentz group. Acad. Sci. USSR. J. Phys. 10, (1946). 93–94. 20.0X
427. 6,147b Gelfand, I.; Raikov, D. Irreducible unitary representations of locally bicompact groups. Rec. Math. [Mat. Sbornik] N. S. 13(55), (1943). 301–316. 20.0X

428. 6,147a Gelfand, I.; Raikov, D. Irreducible unitary representations of locally bicompact groups. *C. R. (Doklady) Acad. Sci. URSS (N. S.)* 42, (1944). 199–201. 20.0X
429. 5,147d Gelfand, I.; Neumark, M. On the imbedding of normed rings into the ring of operators in Hilbert space. *Rec. Math. [Mat. Sbornik] N.S.* 12(54), (1943). 197–213. 46.3X
430. 3,52b Gelfand, I.; Šilov, G. ber verschiedene Methoden der Einführung der Topologie in die Menge der maximalen Ideale eines normierten Ringes. (German) *Rec. Math. [Mat. Sbornik] N. S.* 9 (51), (1941). 25–39. 46.3X
431. 3,52a Gelfand, I. Ideale und primre Ideale in normierten Ringen. (German) *Rec. Math. [Mat. Sbornik] N. S.* 9 (51), (1941). 41–48. 46.3X
432. 3,51g Gelfand, I. ber absolut konvergente trigonometrische Reihen und Integrale. (German) *Rec. Math. [Mat. Sbornik] N. S.* 9 (51), (1941). 51–66. 46.3X
433. 3,51f Gelfand, I. Normierte Ringe. (German) *Rec. Math. [Mat. Sbornik] N. S.* 9 (51), (1941). 3–24. 46.3X
434. 3,36d Gelfand, I. Zur Theorie der Charaktere der Abelschen topologischen Gruppen. (German) *Rec. Math. [Mat. Sbornik] N. S.* 9 (51), (1941). 49–50. 20.0X
435. 2,293c Gelfand, I. Die direkte und umgekehrte Aufgabe der Bestimmung des Anziehungspotentials eines homogenen Kreissegments. (Russian) *Bull. Acad. Sci. URSS. Sr. Gograph. Gophys. [Izvestia Akad. Nauk SSSR]* 1941, (1941). 89–94. 36.0X
436. 1,338g Gelfand, I. On one-parametrical groups of operators in a normed space. *C. R. (Doklady) Acad. Sci. URSS (N. S.)* 25, (1939). 713–718. 46.3X
437. 1,331a Gelfand, I. To the theory of normed rings. III. On the ring of almost periodic functions. *C. R. (Doklady) Acad. Sci. URSS (N.S.)* 25, (1939). 573–574. 42.3X
438. 1,330f Gelfand, I. To the theory of normed rings. II. On absolutely convergent trigonometrical series and integrals. *C. R. (Doklady) Acad. Sci. URSS (N.S.)* 25, (1939). 570–572. 42.3X
439. 1 398 918 Gelfand, Israel; Retakh, Vladimir Noncommutative Vieta theorem and symmetric functions. *The Gelfand Mathematical Seminars, 1993–1995*, 93–100, Gelfand Math. Sem., Birkhäuser Boston, Boston, MA, 1996. 05E05
440. 1 391 533 Fokas, A. S.; Gel-fand, I. M.; Kurylev, Y. Inversion method for magnetoencephalography. *Inverse Problems* 12 (1996), no. 3, L9–L11. 92C55 (35R30)
441. 1 292 007 Gelfand, I.; Neumark, M. On the imbedding of normed rings into the ring of operators in Hilbert space. Corrected reprint of the 1943 original [MR 5, 147]. *Contemp. Math.*, 167, *C\*-algebras: 1943–1993* (San Antonio, TX, 1993), 2–19, Amer. Math. Soc., Providence, RI, 1994. 46L05 (01A75)
442. 1 289 402 Arnold, V. I.; Birman, M. Sh.; Gelfand, I. M.; et al. Anatolii Moiseevich Vershik (on the occasion of his sixtieth birthday). (Russian) *Uspekhi Mat. Nauk* 49 (1994), no. 3(297), 195–204; translation in *Russian Math. Surveys* 49 (1994), no. 3, 207–221 01A70

443. 1 210 130 Gelfand, I. M. The works of L. V. Kantorovich. (Russian) On the eightieth anniversary of the birth of Academician L. V. Kantorovich (1912–1986), Part I (Russian). Optimizatsiya No. 50(67) (1991), 131–134. 01A70
444. 1 110 784 Gelfand, I. M.; Gindikin, S. G. Integral geometry and tomography. (Russian) Voprosy Kibernet. (Moscow) No. 157 (1990), 3–7. 01A60 (44-03 53-03 53C65)
445. 819 999 Guberman, Sh. A.; Gelfand, I. M.; Dzyuba, G. I.; Kuznetsov, L. V. Use of the gestalt approach in distinguishing objects in an image in a problem of automated analysis of chest x-rays. (Russian) Medical diagnostic and prognostic problems from the mathematician's viewpoint. Voprosy Kibernet. (Moscow) No. 112 (1985), 148–172. 92A07