Boris Anatolievich Dubrovin

(06.04.1950 – 19.03.2019)

Борис Анатольевич в 1972 году окончил механико-математический факультет. В 1976 году защитил кандидатскую диссертацию. В этот же год был удостоен премии Московского математического общества. В 1984 году стал доктором наук.

Борис Анатольевич с 1975 года по 1993 работал на кафедре высшей геометрии и топологии. С 1993 года - профессор в SISSA, Триест (Италия).

С 2010 года заведовал лабораторией геометрических методов математической физики имени Н.Н.Боголюбова, созданной после объявления победителей гранта Правительства Российской Федерации для государственной поддержки научных исследований, проводимых под руководством ведущих учёных в российских образовательных учреждениях высшего профессионального образования.

Мировую известность ему принесли совместные с С. П. Новиковым работы по теории периодических решений уравнения Кортевега–де Фриза и конечно-зонных периодических потенциалов в квантовой механике, а также работы, в которых были открыты скобки Пуассона гидродинамического типа, важные для теории солитонов. Широкую известность получили его работы по топологической квантовой теории поля, включающие созданную им теорию фробениусовых многообразий. Он нашел важные применения теории уравнения Пенлеве-I в задаче об опрокидывании в системах с малой дисперсией.

Мар 22, 2019, Попеленский Михаил Юрьевич
https://math.msu.ru/node/1159

Фото: http://www.mi-ras.ru/index.php/index.php?c=news

Letters in Mathematical Physics (2019) 109:1269–1270
https://doi.org/10.1007/s11005-019-01178-8

In memoriam: Boris Dubrovin

Vladimir B. Matveev[1] · **Michel Semenov-Tian-Shansky**[1]

Published online: 25 April 2019

The mathematical community has suffered a big loss with the passing of Professor Boris Dubrovin on March 19th in Trieste after his courageous battle against a rare and terrible disease (ALS). He started to serve on the editorial board of LMP in 2009, and was a very dedicated and efficient editor.

Boris started his scientific career in the 70's at Moscow University as a PhD student of Professor S.P. Novikov; his initial background was in Algebraic Topology, but since he quickly became one of the key actors in the newly emerging theory of integrable systems. His contribution to the study of finite-band solutions of the KdV equation was honored by the Prize for young mathematicians of the Moscow Mathematical Society which he received in 1976 (together with A. Its and I. Krichever). He also made important contributions to the theory of isomonodromic deformations of ordinary differential equations with applications ranging from conformal field theory to the theory of strings. Around the late 80's and early 90's he started to develop the theory of Frobenius manifolds, a notion that rapidly became one of the focal points of Modern Mathematical Physics, with numerous applications in the theory of Integrable Systems, Superstring theory, and Quantum Cohomology. In 1988, Boris became a full Professor of Moscow University. His 3-volume book on Modern Geometry (written in collaboration with S.P. Novikov and A.T. Fomenko) turned into a reference text for several generations of students worldwide. In 1993, he was elected Distinguished Professor of Mathematical Physics at SISSA, and Trieste became the main center of his research and teaching activities for a quarter of a century. For several years, he also has been a director of the Mathematical Physics Group at SISSA. Since 2010, Boris was the Director and organizer of the new Bogolyubov Laboratory *Geometrical methods in Mathematical Physics* of Moscow University. This Laboratory has become one of the most active mathematical centers in Moscow. Finally, let us mention that he has been an invited speaker in prestigious international conferences, including ICMP (Swansea 1988, Rio 2006), ICM (Berlin 1998), and ECM (Budapest 1996).

He continued his work up to the last months of his life; one of his very last papers appeared in Duke Mathematical Journal a few days before his death. Boris' legacy will inspire Mathematical Physicists for many years to come.

Dijon
March 29, 2019

Фото: https://people.sissa.it/~dubrovin/

Degrees

Ph.D. in Geometry and Topology: "Spectral theory of finite-gap Sturm-Liouville potentials, and Riemann surfaces", 1976

D.Sc. in Phys. and Math: "Abelian varieties, theta-functions, and nonlinear equations", 1984

List of Books of Boris Dubrovin

1. Topological and Algebraic Geometry Methods in Contemporary Mathematical Physics. (With I. Krichever and S. Novikov), Cambridge Sci. Publishers, 2004
2. Normal forms of integrable PDEs, Frobenius manifolds and Gromov - Witten invariants (with Youjin Zhang),2001
3. Geometry of Hamiltonian evolutionary systems. Bibliopolis, Napoli, 1991
4. Topology. (With Yu.P. Soloviev.) Moscow State University Publishing House, 1989
5. Riemann surfaces and non-linear equations. I. Moscow State University Publishing House, Moscow, 1986. English translation to be published by American Math. Society)
6. Modern Geometry: Methods of Homology Theory. (With S.P. Novikov and A.T. Fomenko.) Nauka, Moscow, 1984. English translation by Springer Verlag, 1990
7. Modern Geometry: Methods and Applications. Parts I, II. (With S.P. Novikov and A.T. Fomenko.) Nauka, Moscow, 1979 (second edition 1986). English translation by Springer Verlag in two separate volumes, second English edition 1992

Selected Publications of Boris Dubrovin

1. **Local moduli of semisimple Frobenius coalescent structures** (pdf), arXiv:1712.08575 (with Giordano Cotti, Davide Guzzetti)
2. **Isomonodromy deformations at an irregular singularity with coalescing eigenvalues** (pdf), arXiv:1706.04808 (with Giordano Cotti, Davide Guzzetti)
3. **Classical Hurwitz numbers and related combinatorics** (pdf), Moscow Mathematical Journal **17** (2017) 601-633 (with Di Yang and Don Zagier)
4. **On Gromov - Witten invariants of P^1** (pdf), arXiv:1702.01669 (with Di Yang)
5. **Bihamiltonian cohomologies and integrable hierarchies II: the tau structures** (pdf), arXiv:1701.03222 (with Si-Qi Liu,Youjin Zhang)
6. **Hodge-GUE correspondence and the discrete KdV equation** (pdf), arXiv:1612.02333 (with Si-Qi Liu, Di Yang, Youjin Zhang)
7. **Simple Lie algebras, Drinfeld-Sokolov hierarchies, and multipoint correlation functions** (pdf), arXiv:1610.07534 (with Marco Bertola, Di Yang)
8. **Integrable systems of double ramification type** (pdf), arXiv:1609.04059 (with A.Buryak, J.Guéré, P.Rossi)
9. **On cubic Hodge integrals and random matrices** (pdf), Communications in Number Theory and Physics **11** (2017) 311-336, arXiv:1606.03720 (with Di Yang)
10. **Generating series for GUE correlators** (pdf), Letters in Mathematical Physics **107** (2017) 1971-2012, arXiv:1604.07628 (with Di Yang)
11. **Tau-structures for the double ramification hierarchies** (pdf), arXiv:1602.05423 (with A.Buryak, J.Guéré, P.Rossi)
12. **On critical behaviour in generalised Kadomtsev - Petviashvili equations** (pdf), Physica D **333** (2016) 157-170 (with T.Grava, C.Klein)
13. **Extended affine Weyl groups of BCD type, Frobenius manifolds and their Landau - Ginzburg superpotentials** (pdf), arXiv:1510.08690 (with Ian A.B.Strachan, Youjin Zhang, Dafeng Zuo)
14. **Simple Lie algebras and topological ODEs** (pdf), arXiv:1508.03750, to appear in IMRN (with Marco Bertola, Di Yang)
15. **Correlation functions of the KdV hierarchy and applications to intersection numbers over $\overline{\mathcal M}_{g,n}$** (pdf), Physica D **327** (2016) 30-57 (with M.Bertola and Di Yang)
16. **Hodge integrals and tau-symmetric integrable hierarchies of Hamiltonian evolutionary PDEs** (pdf), Adv. Math. **293** (2016) 382-435 (with Si-Qi Liu, Di Yang, Youjin Zhang)
17. **Symplectic field theory of a disk, quantum integrable systems, and Schur polynomials** (pdf), Ann. Henri Poincaré **17** (2016) no. 7, 1595-1613
18. **On critical behaviour in systems of Hamiltonian partial differential equations** (pdf), J. Nonlinear Sci. **25** (2015) 631-707 (with T.Grava, C.Klein, A.Moro)
19. **Gromov - Witten invariants and integrable hierarchies of topological type** (pdf), Amer. Math. Transl. **234** (2014) 141-171
20. **Minimal Liouville gravity correlation numbers from Douglas string equation** (pdf), JHEP 01(2014) 156 (with A.Belavin and B.Mukhametzhanov)
21. **On an isomonodromy deformation equation without the Painlevé property** (pdf), Russ. J. Math. Phys. **21** no. 1 (2014) 9-35 (with A.Kapaev)
22. **On the critical behavior in nonlinear evolutionary PDEs with small viscocity** (pdf), Russ. J. Math. Phys. **19:4** (2012) 13-22 (with M.Elaeva)
23. **On the genus two free energies for semisimple Frobenius manifolds** (pdf), Russ. J. Math. Phys. **19:3** (2012) 1-10 (with Si-Qi Liu and Youjin Zhang)
24. **Classical double, R-operators, and negative flows of integrable hierarchies** (pdf), Theor. Math. Phys. **172** (2012) 911-931 (with T.Skrypnyk)
25. **Infinite-dimensional Frobenius manifolds for 2 + 1 integrable systems** (pdf), Math. Ann. **349** (2011) 75-115 (with G.Carlet and L.P.Mertens),
26. **Numerical study of breakup in generalized Korteweg - de Vries and Kawahara equations** (pdf), SIAM. J. Appl. Math. **71** (2011) 983-1008 (with T.Grava and C.Klein)
27. **Linearly degenerate Hamiltonian PDEs and a new class of solutions to the WDVV associativity equations** (pdf), Funct. Anal. Appl. **45:4** (2011) 278-290 (with M.Pavlov and S.Zykov)
28. **Hamiltonian PDEs: deformations, integrability, solutions** (pdf), J. Phys. A: Math. Theor. **43** (2010) 434002

29. **On universality of critical behaviour in the focusing nonlinear Schroedinger equation, elliptic umbilic catastrophe and the tritronquée solution to the Painlevé-I equation** (pdf), J. Nonlinear Sci. **19** (2009) 57-94 (with T.Grava and C.Klein)
30. **Hamiltonian Perturbations of Hyperbolic PDEs: from Classification Results to the Properties of Solutions, (pdf)** In: New Trends in Mathematical Physics. Selected contributions of the XVth International Congress on Mathematical Physics , Sidoravicius, Vladas (Ed.), Springer Netherlands, 2009., pp. 231-276.
31. **Frobenius manifolds and central invariants for the Drinfeld - Sokolov bihamiltonian structures (pdf),** Adv. Math. **219** (2008) 780-837 (with Si-Qi Liu, Youjin Zhang).
32. **Hamiltonian partial differential equations and Frobenius manifolds (pdf),** Russ. Math. Surveys **63** (2008) 999-1010.
33. **On universality of critical behaviour in Hamiltonian PDEs** (pdf), Amer. Math. Soc. Transl. **224** (2008) 59-109.
34. **On the reductions and classical solutions of the Schlesinger equations** (pdf), Differential equations and quantum groups, IRMA Lect. Math. Theor. Phys. **9** (2007) 157-187. Eur. Math. Soc., Zuerich, 2007 (with M. Mazzocco).
35. **Canonical structure and symmetries of the Schlesinger equations** (pdf) , Comm. Math. Phys. **271** (2007) 289--373 (with Marta Mazzocco).
36. **On Hamiltonian perturbations of hyperbolic systems of conservation laws II: universality of critical behaviour** (pdf), Comm. Math. Phys. **267** (2006) 117 - 139.
37. **WDVV equations and Frobenius manifolds** (pdf), Encyclopedia of Mathematical Physics , eds. J.-P. Françoise, G.L. Naber and Tsou S.T., Oxford: Elsevier, 2006, Vol. 1, p. 438-447.
38. **On Hamiltonian perturbations of hyperbolic systems of conservation laws I: quasi-triviality of bi-hamiltonian perturbations** (pdf), Comm. in Pure Appl. Math. **59** (2006) 559 - 615 (with Si-Qi Liu, Youjin Zhang).
39. **Extended affine Weyl groups and Frobenius manifolds -- II** (pdf) , math.DG/0502365 (23 pages) (with Youjin Zhang, Dafeng Zuo).
40. **On analytic families of invariant tori for PDEs** (pdf), Astérisque **297** (2004) 35-65.
41. **Virasoro Symmetries of the Extended Toda Hierarchy** (pdf), Comm. Math. Phys. **250** (2004) 161-193 (with Youjin Zhang).
42. **On almost duality for Frobenius manifolds** (pdf), Amer. Math. Soc. Transl. **212** (2004) 75-132.
43. **The Extended Toda Hierarchy** (pdf), Moscow Math. J. **4** (2004) 313-332 (with Guido Carlet and Youjin Zhang).
44. **Monodromy of certain Painlevé-VI transcendents and reflection groups** (pdf), Inventiones Math. **141** (2000) 55-147 (with M.Mazzocco).
45. **Painlevé transcendents and topological field theory** (pdf), In: The Painlevé Property: One Century Later. R.Conte (Ed.), Springer Verlag, 1999, p. 287-412
46. **Frobenius manifolds and Virasoro constraints** (pdf), Selecta Mathematica **5** (1999) 423-466 (with Youjin Zhang).
47. **Recurrent procedure for the determination of the free energy ε^2 expansion in the topological string theory** (arXiv:solv-int/990400) (with A.Maltsev).
48. **Geometry and analytic theory of Frobenius manifolds** (pdf) , Proceedings of ICM98 **2** (1998) 315-326.
49. **Flat pencils of metrics and Frobenius manifolds** (pdf), Proceedings of 1997 Taniguchi Symposium "Integrable Systems and Algebraic Geometry", Editors M.-H. Saito, Y.Shimizu and K.Ueno, 47-72. World Scientific, 1998.
50. **Bihamiltonian Hierarchies in 2D Topological Field Theory At One-Loop Approximation** (pdf), Comm. Math. Phys. **198** (1998) 311-361 (with Youjin Zhang).
51. **Extended Affine Weyl Groups and Frobenius Manifolds** (pdf) , Compositio Math. **111** (1998) 167-219 (with Youjin Zhang).
52. **Functionals of the Peierls - Fröhlich Type and the Variational Principle for the Whitham Equations** (pdf), In: Amer. Math. Soc. Transl. (2) **179** (1997) 35-44.
53. **Three-Phase Solutions of the Kadomtsev - Petviashvili Equation** (pdf), Studies in Applied Math. **99** (1997) 137-203 (with R.Flickinger and H.Segur).
54. **Geometry of 2D topological field theories** (pdf). In: Integrable Systems and Quantum Groups (Authors: R.Donagi, B.Dubrovin, E.Frenkel, E.Previato), Eds. M.Francaviglia, S.Greco, Springer Lecture Notes in Math. **1620** (1996), pp. 120 - 348.
55. **Integrable functional equations and algebraic geometry** (pdf) , Duke Math. J. **76** (1994) 645-668 (with A.S.Fokas and P.M.Santini).

56. **Algebraic-geometrical Darboux coordinates in R-matrix formalism** (pdf), Preprint SISSA 88/94/FM (with P.Diener).
57. **Geometry and integrability of topological-antitopological fusion** (pdf), Commun. Math. Phys. **152** (1993) 539-564.
58. **Dispersion relations for non-linear waves and the Schottky problem** (pdf). In: Important Developments In Soliton Theory , ed. A.S.Fokas and V.E.Zakharov, pp. 86 - 98. Springer Verlag, 1993.
59. **Time-dependent Schroedinger-like operators and related integrable models** , Preprint LA-UR-93-4009, Los Alamos, 1993, 13 pages (with V.G.Makhankov).
60. **Differential geometry of the space of orbits of a Coxeter group** (pdf). Preprint SISSA 29/93/FM, February 1993, 30 pp. Published in: Surveys in Differential Geometry , Vol. **IV** (1999), p. 181 - 212.
61. **Poisson brackets on presymplectic manifolds** , Int. J. Mod. Phys. **A8** (1993) 3747-3771 (with M.Giordano, G.Marmo and A.Simoni).
62. **Topological conformal field theory from the point of view of integrable systems** (pdf). In: "Integrable Quantum Field Theories", Eds. L.Bonora, G.Mussardo, A.Schwimmer, L.Girardello, and M.Martellini, pp. 283 - 302. Plenum Press, 1993.
63. **Integrable systems and classification of 2D topological field theories** (pdf). In: "Integrable Systems", The J.-L.Verdier Memorial Conference , Actes du Colloque International de Luminy. Eds. O.Babelon, P.Cartier, Y.Kosmann-Schwarzbach, pp. 313 - 359. Birkhäuser, 1993.
64. **Integrable systems in topological field theory** (pdf), Nucl. Phys. **B 379** (1992) 627-689.
65. **Hamiltonian formalism of Whitham-type hierarchies and topological Landau - Ginsburg models** (pdf), Commun. Math. Phys. **145** (1992) 195-207.
66. **Differential geometry of moduli spaces and its applications to soliton equations and to topological conformal field theory** (pdf). Preprint n.117, Scuola Normale Superiore, Pisa, November 1991, 31 pp. Published in: Surveys in Differential Geometry , Vol. **IV** (1999), p. 213 - 238.
67. **On differential geometry of strongly integrable systems of hydrodynamic type** (pdf), Funktsionaln. Analiz i ego Prilozhenija **24:4** (1990) 25-30. English translation (pdf) in: Funct. Anal. Appl. **24** (1990) 280-285.
68. **Weakly perturbed soliton lattices.** (pdf), Nucl. Phys. **B** (Proc. Suppl.) **18A** (1990), 23-44.
69. **Alternative Hamiltonian description for quantum systems.** Modern Physics Letters **A 5:15** (1990) (with G.Marmo, A.Simoni).
70. **Hydrodynamics of weakly deformed soliton lattices. Differential geometry and Hamiltonian theory** (pdf), Uspekhi Matem. Nauk **44:6** (1989) 29-98. English translation (pdf) in: Russ. Math. Surveys **44:6** (1989) 35-124 (with S.P.Novikov).
71. **Differential-geometric Poisson brackets on a lattice** (pdf), Funktsionaln. Analiz i ego Prilozhenija **23:2** (1989) 57-59. English translation (pdf) in: Funct. Anal. Appl. **23:2** (1989) 131-133.
72. **Exact solutions of non-stationary Schroedinger equation with self-consistent potential** (pdf), Soviet J. Part. Nucl. **19:3** (1988) 579-621 (with. I.M.Krichever, T.M.Malanyuk, and V.G.Makhankov).
73. **Real theta-functional solutions of the Kadomtsev-Petviashvili equation** (pdf), Izvestija Akad. Nauk SSSR, serija matem., **52:2** (1988) 267-286. English translation (pdf) in: Math. USSR Izvestia **32:2** (1989) 269-288 (with S.M.Natanzon).
74. **Theory of operators and real algebraic geometry.** In: Global Analysis and Mathematical Physics (1987), Voronezh University Publishing House (English translation: Lecture Notes in Math. **1334** (1988), 42-59).
75. **Integrable systems. I** (pdf). In: Sovremennye Problemy Matematiki. Fundamentalnye Napravleniya **4**, VINITI, Moscow, 1985, 179-285 (with I.M.Krichever and S.P.Novikov). English translation: Encyclopaedia of Mathematical Sciences **4**, 173-280.
76. **On Poisson brackets of hydrodynamic type** (pdf), Soviet Math. Dokl. **279:2** (1984), 294-297 (with S.P.Novikov).
77. **Non-linear equations conected with matrix finite-gap operators.** In: Nonlinear and Turbulent Processes in Physics **3** (1984), Gordon and Breach, NY.
78. **Spectrum of matrix finite-gap operators.** Russian Math. Surv. **39:2** (1984).
79. **Matrix finite-gap operators** (pdf). In: Sovremennye Problemy Matematiki, VINITI **23** (1983). 77-123. English transl. (pdf): J. Soviet Math. **28** (1985), 20-50.
80. **The Hamiltonian formalism of one-dimensional systems of hydrodynamic type and the Bogolyubov - Whitham averaging method** (pdf), Soviet Math. Dokl. **270:4** (1983) 665-669 (with S.P.Novikov).
81. **Topological and algebraic geometrical methods in contemporary mathematical physics. II.** In: Soviet Scientific Reviews, Vol. **C3** (Mathematical Physics Reviews) (1982), 1-150 (with I.M.Krichever and S.P.Novikov).

82. **Algebraic-geometric Poisson brackets for real finite-gap solutions of the Sine-Gordon equation and the non-linear Schrödinger equation** (pdf), Soviet Math. Dokl. **267:6** (1982) 1295-1300 (with S.P.Novikov).
83. **Analytic properties of spectral data for non-selfadjoint linear operators, associated with the real periodic solutions of the Sine-Gordon equation,** Soviet Math. Dokl. **265:4** (1982) 789-793.
84. **Real two-gap solutions of the Sine-Gordon equation** (pdf), Funktsionaln. Analiz i ego Prilozhenija **16:1** (1982) 27-43. English translation (pdf) in: Funct. Anal. Appl. **16:1** (1982), 21-33 (with S.M.Natanzon).
85. **Theta-functions and nonlinear equations** (pdf), Uspekhi Matem. Nauk **36:2** (1981). English translation (pdf) in: Russian Math. Surv. **36:2** (1981), 11-92.
86. **The Kadomtsev -- Petviashvili equation and relations for the periods of holomorphic differentials on Riemann surfaces** (pdf), Izvestija Akad. Nauk SSSR, serija matem. **45:5** (1981) 1015-1028. English translation (pdf) in: Math. USSR Izvestia **19:2** (1982) 285-296.
87. **Ground states in a periodic field. Magnetic Bloch functions and vector bundles** (pdf), Soviet Math. Dokl. **253:6** (1980) (with S.P.Novikov).
88. **Ground states of a two-dimensional electron in periodic magnetic field** (pdf), Soviet Phys. JETP **79:3** (1980) 1006-1016 (with S.P.Novikov).
89. **On the S.P.Novikov conjecture in the theory of theta-functions and nonlinear equations of the Korteweg - de Vries and Kadomtsev - Petviashvili type,** Soviet Math. Dokl. **251:3** (1980) 541-544.
90. **Completely integrable Hamiltonian systems, associated with matrix operators, and Abelian varieties** (pdf), Funktsionaln. Analiz i ego Prilozhenija **11:4** (1977) 28-41. English translation (pdf) in: Funct. Anal. Appl. **11:4** (1977) 265-277.
91. **Finite-zone linear differential operators and Abelian varieties** (pdf), Uspekhi Matem. Nauk **31:4** (1976) 259-260.
92. **Non-linear equations of Korteweg -- de Vries type, finite-zone linear operators, and Abelian varieties** (pdf), Uspekhi Matem. Nauk **31:1** (1976), 55-136. English translation (pdf) in: Russian Math. Surv. **31:1** (1976), 59-146 (with V.B.Matveev and S.P.Novikov).
93. **Schroedinger equation in magnetic field and Riemann surfaces** (pdf), Soviet Math. Dokl. **229:1** (1976) (with I.M.Krichever and S.P.Novikov).
94. **Periodic problem for the Korteweg - de Vries equation in the class of finite-zone potentials** (pdf), Funktsionaln. Analiz i ego Prilozhenija **9:3** (1975), 41-51. English translation (pdf) in: Funct. Anal. Appl. **9:3** (1975) 215-223.
95. **Inverse problem of scattering theory for periodic finite-zone potentials** (pdf), Funktsionaln. Analiz i ego Prilozhenija **9:1** (1975) 65-66. English translation (pdf) in: Funct. Anal. Appl. **9:1** (1975) 61-62.
96. **Korteweg - de Vries equation and algebraic geometry,** Russian Math. Surv. **29:9** (1974) (with S.P.Novikov).
97. **Periodic Korteweg - de Vries and Sturm - Liouville problems. Their connection with algebraic geometry** (pdf), Sov. Math. Dokl. **219:3** (1974) (with S.P.Novikov).
98. **Periodic and conditionally periodic analogs of the many-soliton solutions of the Korteweg - de Vries equation** (pdf), Soviet Phys. JETP **67** (1974) 1058-1063 (with S.P.Novikov).
99. **Generalized Witt groups** (pdf), Matem. Zametki **13:3** (1973) 419-426. English translation (pdf) in: Math. Notes **13:3** (1973) 253-257.

Избранные публикации (по данным mathnet.ru**)**

1. Giordano Cotti, Boris Dubrovin, Davide Guzzetti, “Local Moduli of Semisimple Frobenius Coalescent Structures”, SIGMA, 16 (2020), 40 , 105, arXiv: 1712.08575
2. Boris Dubrovin, Ian A. B. Strachan, Youjin Zhang, Dafeng Zuo, “Extended affine Weyl groups of BCD-type: Their Frobenius manifolds and Landau–Ginzburg superpotentials”, Adv. Math., 351 (2019), 897–946
3. Boris Dubrovin, Andrei Kapaev, “A Riemann–Hilbert Approach to the Heun Equation”, SIGMA, 14 (2018), 93 , 24
4. Boris Dubrovin, Di Yang, Don Zagier, “Classical Hurwitz numbers and related combinatorics”, Mosc. Math. J., 17:4 (2017), 601–633

5. B. Dubrovin, T. Grava, C. Klein, A. Moro, “On critical behaviour in systems of Hamiltonian partial differential equations”, J. Nonlinear Sci., 25:3 (2015), 631–707
6. A. Belavin, B. Mukhametzhanov, B. Dubrovin, “Minimal Liouville gravity correlation numbers from Douglas string equation”, J. High Energy Phys., 18:1 (2014), 156 , 50
7. Б. А. Дубровин, Т. В. Скрыпник, “Классический дубль, R-операторы и отрицательные потоки интегрируемых иерархий ”, ТМФ, 172:1 (2012), 40–63
8. Б. А. Дубровин, С. А. Зыков, М. В. Павлов, “Слабо нелинейные гамильтоновы уравнения в частных производных и новый класс решений уравнений ассоциативности WDVV”, Функц. анализ и его прил., 45:4 (2011), 49–64
9. Б. А. Дубровин, “Гамильтоновы уравнения в частных производных и фробениусовы многообразия”, УМН, 63:6(384) (2008), 7–18
10. G. Carlet, B. A. Dubrovin, Y. Zhang, “The extended Toda hierarchy”, Mosc. Math. J., 4:2 (2004), 313–332
11. Б. А. Дубровин, “К дифференциальной геометрии сильно интегрируемых систем гидродинамического типа”, Функц. анализ и его прил., 24:4 (1990), 25–30
12. Б. А. Дубровин, “О дифференциально-геометрических скобках Пуассона на решетке”, Функц. анализ и его прил., 23:2 (1989), 57–59
13. Б. А. Дубровин, С. П. Новиков, “Гидродинамика слабо деформированных солитонных решеток. Дифференциальная геометрия и гамильтонова теория”, УМН, 44:6(270) (1989), 29–98
14. Б. А. Дубровин, С. М. Натанзон, “Вещественные тэта-функциональные решения уравнения Кадомцева–Петвиашвили”, Изв. АН СССР. Сер. матем., 52:2 (1988), 267–286 [B. A. Dubrovin, S. M. Natanzon, “Real theta-function solutions of the Kadomtsev–Petviashvili equation”, Math. USSR-Izv., 32:2 (1989), 269–288]
15. Б. А. Дубровин, И. М. Кричевер, С. П. Новиков, “Интегрируемые системы. I”, Динамические системы – 4, Итоги науки и техн. Сер. Соврем. пробл. мат. Фундам. направления, 4, ВИНИТИ, М., 1985, 179–277
16. Б. А. Дубровин, С. П. Новиков, “О скобках Пуассона гидродинамического типа”, Докл. АН СССР, 279:2 (1984), 294–297
17. С. А. Назаров, А. Л. Крылов, А. Е. Лифшиц, В. А. Васильев, А. В. Михайлов, Б. А. Дубровин, “Заседания семинара имени И. Г. Петровского по дифференциальным уравнениям и математическим проблемам физики”, УМН, 39:2(236) (1984), 217–221
18. Б. А. Дубровин, “Матричные конечнозонные операторы”, Итоги науки и техн. Сер. Соврем. пробл. мат., 23, ВИНИТИ, М., 1983, 33–78 [B. A. Dubrovin, “Matrix finite-gap operators”, J. Soviet Math., 28:1 (1985), 20–50]
19. Б. А. Дубровин, С. П. Новиков, “Гамильтонов формализм одномерных систем гидродинамического типа и метод усреднения Боголюбова–Уизема”, Докл. АН СССР, 270:4 (1983), 781–785
20. Б. А. Дубровин, “Уравнение Кадомцева–Петвиашвили и соотношения между периодами голоморфных дифференциалов на римановых поверхностях”, Изв. АН СССР. Сер. матем., 45:5 (1981), 1015–1028 [B. A. Dubrovin, “The Kadomtsev–Petviashvili equation and the relations between the periods of holomorphic differentials on Riemann surfaces”, Math. USSR-Izv., 19:2 (1982), 285–296]
21. Б. А. Дубровин, “Тэта-функции и нелинейные уравнения”, УМН, 36:2(218) (1981), 11–80 [B. A. Dubrovin, “Theta functions and non-linear equations”, Russian Math. Surveys, 36:2 (1981), 11–92]
22. Б. А. Дубровин, “О гипотезе С. П. Новикова в теории θ-функций и нелинейных уравнений типа Кортевега–де Фриза и Кадомцева–Петвиашвили”, Докл. АН СССР, 251:3 (1980), 541–544
23. Б. А. Дубровин, С. П. Новиков, “Основные состояния вperiодическом поле. Магнитно-блоховские функции и векторные расслоения”, Докл. АН СССР, 253:6 (1980), 1293–1297
24. В. П. Мясников, М. В. Федорюк, К. Болдригини, Р. Л. Добрушин, Ю. М. Сухов, А. С. Шварц, С. Л. Зиглин, Б. А. Дубровин, С. П. Новиков, “Заседания семинара имени И. Г. Петровского

по дифференциальным уравнениям и математическим проблемам физики”, УМН, 35:5(215) (1980), 251–256

25. Б. А. Дубровин, “Вполне интегрируемые гамильтоновы системы, связанные с матричными операторами, и абелевы многообразия”, Функц. анализ и его прил., 11:4 (1977), 28–41 [B. A. Dubrovin, “Completely integrable Hamiltonian systems associated with matrix operators and Abelian varieties”, Funct. Anal. Appl., 11:4 (1977), 265–277]
26. Б. А. Дубровин, “Конечнозонные линейные дифференциальные операторы и абелевы многообразия”, УМН, 31:4(190) (1976), 259–260
27. Б. А. Дубровин, В. Б. Матвеев, С. П. Новиков, “Нелинейные уравнения типа Кортевега–де Фриза, конечнозонные линейные операторы и абелевы многообразия”, УМН, 31:1(187) (1976), 55–136 [B. A. Dubrovin, V. B. Matveev, S. P. Novikov, “Non-linear equations of Korteweg–de Vries type, finite-zone linear operators, and Abelian varieties”, Russian Math. Surveys, 31:1 (1976), 59–146]
28. Б. А. Дубровин, И. М. Кричевер, С. П. Новиков, “Уравнение Шредингера в периодическом поле и римановы поверхности”, Докл. АН СССР, 229:1 (1976), 15–18
29. Б. А. Дубровин, “Периодическая задача для уравнения Кортевега–де Фриза в классе конечнозонных потенциалов”, Функц. анализ и его прил., 9:3 (1975), 41–51 [B. A. Dubrovin, “Periodic problems for the Korteweg–de Vries equation in the class of finite band potentials”, Funct. Anal. Appl., 9:3 (1975), 215–223]
30. Б. А. Дубровин, “Обратная задача теории рассеяния для периодических конечнозонных потенциалов”, Функц. анализ и его прил., 9:1 (1975), 65–66 [B. A. Dubrovin, “Inverse problem for periodic finite-zoned potentials in the theory of scattering”, Funct. Anal. Appl., 9:1 (1975), 61–62]
31. Б. А. Дубровин, С. П. Новиков, “Периодическая задача для уравнений Кортевега–де Фриза и Штурма–Лиувилля. Их связь с алгебраической геометрией”, Докл. АН СССР, 219:3 (1974), 531–534
32. Б. А. Дубровин, “Обобщенные группы Витта”, Матем. заметки, 13:3 (1973), 419–426 [B. A. Dubrovin, “Generalized Witt groups”, Math. Notes, 13:3 (1973), 253–257]

Lecture Courses of Boris Dubrovin https://people.sissa.it/~dubrovin/bd_courses.html