

Mathematics Subject Classification 2010

KWIC index: This file is a form of Key Word In Context index of the new MSC2010. It lists every classification code and the line of the MSC in which it occurs. The words of MSC codes referred to are collected in a separate KWIC index.

00A30:	1:	03A05	Philosophical and critical { For philosophy of mathematics, see also 00A30 }
00A79:	1:	00A69	General applied mathematics { For physics, see 00A79 and Sections 70 through 86 }
00B60:	1:	01A75	Collected or selected works; reprintings or translations of classics [See also 00B60]
01-00:	1:	97A50	Bibliographies [See also 01-00]
01-XX:	1:	97A30	History of mathematics and mathematics education [See also 01-XX]
01A75:	1:	00B60	Collections of reprinted articles [See also 01A75]
03-XX:	1:	18A15	Foundations, relations to logic and deductive systems [See also 03-XX]
03-XX:	2:	18B05	Category of sets, characterizations [See also 03-XX]
03A05:	1:	00A30	Philosophy of mathematics [See also 03A05]
03B25:	1:	11U05	Decidability [See also 03B25]
03B25:	2:	12L05	Decidability [See also 03B25]
03B25:	3:	20F10	Word problems, other decision problems, connections with logic and automata [See also 03B25 , 03D05, 03D40, 06B25, 08A50, 68Q70]
03B30:	1:	03F35	Second- and higher-order arithmetic and fragments [See also 03B30]
03B30:	2:	03F60	Constructive and recursive analysis [See also 03B30 , 03D45, 03D78, 26E40, 46S30, 47S30]
03B35:	1:	68T15	Theorem proving (deduction, resolution, etc.) [See also 03B35]
03B40:	1:	68N18	Functional programming and lambda calculus [See also 03B40]
03B42:	1:	03B45	Modal logic (including the logic of norms) { For knowledge and belief, see 03B42 ; for temporal logic, see 03B44 ; for provability logic, see also 03F45 }
03B42:	2:	03C80	Logic with extra quantifiers and operators [See also 03B42 , 03B44 , 03B45 , 03B48]
03B44:	1:	03B45	Modal logic (including the logic of norms) { For knowledge and belief, see 03B42 ; for temporal logic, see 03B44 ; for provability logic, see also 03F45 }
03B44:	2:	03C80	Logic with extra quantifiers and operators [See also 03B42 , 03B44 , 03B45 , 03B48]
03B45:	1:	03C80	Logic with extra quantifiers and operators [See also 03B42 , 03B44 , 03B45 , 03B48]
03B45:	2:	03F45	Provability logics and related algebras (e.g., diagonalizable algebras) [See also 03B45 , 03G25, 06E25]
03B47:	1:	03F52	Linear logic and other substructural logics [See also 03B47]
03B48:	1:	03C80	Logic with extra quantifiers and operators [See also 03B42 , 03B44 , 03B45 , 03B48]
03B52:	1:	94Dxx	Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52 , 03E72, 28E10]
03B52:	2:	94D05	Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52 , 03E72, 28E10]
03B65:	1:	68T50	Natural language processing [See also 03B65]
03B65:	2:	91F20	Linguistics [See also 03B65 , 68T50]
03B70:	1:	68Q55	Semantics [See also 03B70 , 06B35, 18C50]
03B70:	2:	68Q60	Specification and verification (program logics, model checking, etc.) [See also 03B70]
03C05:	1:	08Axx	Algebraic structures [See also 03C05]
03C05:	2:	08Bxx	Varieties [See also 03C05]
03C05:	3:	18C05	Equational categories [See also 03C05 , 08C05]
03C13:	1:	68Q19	Descriptive complexity and finite models [See also 03C13]
03C20:	1:	11U07	Ultraproducts [See also 03C20]
03C20:	2:	12L10	Ultraproducts [See also 03C20]
03C45:	1:	03C48	Abstract elementary classes and related topics [See also 03C45]
03C45:	2:	20F11	Groups of finite Morley rank [See also 03C45 , 03C60]
03C48:	1:	03C45	Classification theory, stability and related concepts [See also 03C48]
03C57:	1:	03D45	Theory of numerations, effectively presented structures [See also 03C57 ; for intuitionistic and similar approaches see 03F55]
03C60:	1:	03C98	Applications of model theory [See also 03C60]
03C60:	2:	08C10	Axiomatic model classes [See also 03Cxx , in particular 03C60]
03C60:	3:	12L12	Model theory [See also 03C60]
03C60:	4:	20F11	Groups of finite Morley rank [See also 03C45 , 03C60]
03C62:	1:	03Hxx	Nonstandard models [See also 03C62]
03Cxx:	1:	08C10	Axiomatic model classes [See also 03Cxx , in particular 03C60]
03Cxx:	2:	11U09	Model theory [See also 03Cxx]
03Cxx:	3:	13Lxx	Applications of logic to commutative algebra [See also 03Cxx , 03Hxx]

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- 03Cxx:** 4: 13L05 Applications of logic to commutative algebra [See also **03Cxx**, **03Hxx**]
- 03Cxx:** 5: 16B70 Applications of logic [See also **03Cxx**]
- 03D05:** 1: 18B20 Categories of machines, automata, operative categories [See also **03D05**, **68Qxx**]
- 03D05:** 2: 20F10 Word problems, other decision problems, connections with logic and automata [See also **03B25**, **03D05**, **03D40**, **06B25**, **08A50**, **68Q70**]
- 03D05:** 3: 20M35 Semigroups in automata theory, linguistics, etc. [See also **03D05**, **68Q70**, **68T50**]
- 03D05:** 4: 68Q45 Formal languages and automata [See also **03D05**, **68Q70**, **94A45**]
- 03D10:** 1: 68Q05 Models of computation (Turing machines, etc.) [See also **03D10**, **68Q12**, **81P68**]
- 03D15:** 1: 68Q15 Complexity classes (hierarchies, relations among complexity classes, etc.) [See also **03D15**, **68Q17**, **68Q19**]
- 03D32:** 1: 68Q30 Algorithmic information theory (Kolmogorov complexity, etc.) [See also **03D32**]
- 03D40:** 1: 06B25 Free lattices, projective lattices, word problems [See also **03D40**, **08A50**, **20F10**]
- 03D40:** 2: 08A50 Word problems [See also **03D40**, **06B25**, **20F10**, **68R15**]
- 03D40:** 3: 20F10 Word problems, other decision problems, connections with logic and automata [See also **03B25**, **03D05**, **03D40**, **06B25**, **08A50**, **68Q70**]
- 03D45:** 1: 03C57 Effective and recursion-theoretic model theory [See also **03D45**]
- 03D45:** 2: 03F60 Constructive and recursive analysis [See also **03B30**, **03D45**, **03D78**, **26E40**, **46S30**, **47S30**]
- 03D45:** 3: 03F65 Other constructive mathematics [See also **03D45**]
- 03D78:** 1: 03F60 Constructive and recursive analysis [See also **03B30**, **03D45**, **03D78**, **26E40**, **46S30**, **47S30**]
- 03E15:** 1: 26A21 Classification of real functions; Baire classification of sets and functions [See also **03E15**, **28A05**, **54C50**]
- 03E15:** 2: 28A05 Classes of sets (Borel fields, σ -rings, etc.), measurable sets, Suslin sets, analytic sets [See also **03E15**, **26A21**, **54H05**]
- 03E15:** 3: 54H05 Descriptive set theory (topological aspects of Borel, analytic, projective, etc. sets) [See also **03E15**, **26A21**, **28A05**]
- 03E35:** 1: 54A35 Consistency and independence results [See also **03E35**]
- 03E50:** 1: 03E57 Generic absoluteness and forcing axioms [See also **03E50**]
- 03E57:** 1: 03E50 Continuum hypothesis and Martin's axiom [See also **03E57**]
- 03E72:** 1: 20N25 Fuzzy groups [See also **03E72**]
- 03E72:** 2: 26E50 Fuzzy real analysis [See also **03E72**, **28E10**]
- 03E72:** 3: 28E10 Fuzzy measure theory [See also **03E72**, **26E50**, **94D05**]
- 03E72:** 4: 46S40 Fuzzy functional analysis [See also **03E72**]
- 03E72:** 5: 47S40 Fuzzy operator theory [See also **03E72**]
- 03E72:** 6: 54A40 Fuzzy topology [See also **03E72**]
- 03E72:** 7: 94Dxx Fuzzy sets and logic (in connection with questions of Section 94) [See also **03B52**, **03E72**, **28E10**]
- 03E72:** 8: 94D05 Fuzzy sets and logic (in connection with questions of Section 94) [See also **03B52**, **03E72**, **28E10**]
- 03Exx:** 1: 54A25 Cardinality properties (cardinal functions and inequalities, discrete subsets) [See also **03Exx**] { For ultrafilters, see **54D80** }
- 03F35:** 1: 03B30 Foundations of classical theories (including reverse mathematics) [See also **03F35**]
- 03F45:** 1: 03B45 Modal logic (including the logic of norms) { For knowledge and belief, see **03B42**; for temporal logic, see **03B44**; for provability logic, see also **03F45** }
- 03F45:** 2: 03G25 Other algebras related to logic [See also **03F45**, **06D20**, **06E25**, **06F35**]
- 03F45:** 3: 06E25 Boolean algebras with additional operations (diagonalizable algebras, etc.) [See also **03G25**, **03F45**]
- 03F52:** 1: 03B47 Substructural logics (including relevance, entailment, linear logic, Lambek calculus, BCK and BCI logics) { For proof-theoretic aspects see **03F52** }
- 03F55:** 1: 03D45 Theory of numerations, effectively presented structures [See also **03C57**; for intuitionistic and similar approaches see **03F55**]
- 03F60:** 1: 03D78 Computation over the reals { For constructive aspects, see **03F60** }
- 03F60:** 2: 26E40 Constructive real analysis [See also **03F60**]
- 03F60:** 3: 46S30 Constructive functional analysis [See also **03F60**]
- 03F60:** 4: 47S30 Constructive operator theory [See also **03F60**]
- 03G05:** 1: 06Exx Boolean algebras (Boolean rings) [See also **03G05**]
- 03G10:** 1: 06Bxx Lattices [See also **03G10**]
- 03G12:** 1: 06C15 Complemented lattices, orthocomplemented lattices and posets [See also **03G12**, **81P10**]
- 03G12:** 2: 81P10 Logical foundations of quantum mechanics; quantum logic [See also **03G12**, **06C15**]
- 03G20:** 1: 06D25 Post algebras [See also **03G20**]

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03G20:	2:	06D30	De Morgan algebras, Lukasiewicz algebras [See also 03G20]
03G25:	1:	03F45	Provability logics and related algebras (e.g., diagonalizable algebras) [See also 03B45, 03G25 , 06E25]
03G25:	2:	06D20	Heyting algebras [See also 03G25]
03G25:	3:	06E25	Boolean algebras with additional operations (diagonalizable algebras, etc.) [See also 03G25 , 03F45]
03G25:	4:	06F35	BCK-algebras, BCI-algebras [See also 03G25]
03G30:	1:	18B25	Topoi [See also 03G30]
03G30:	2:	18C10	Theories (e.g. algebraic theories), structure, and semantics [See also 03G30]
03H05:	1:	26E35	Nonstandard analysis [See also 03H05 , 28E05, 54J05]
03H05:	2:	28E05	Nonstandard measure theory [See also 03H05 , 26E35]
03H05:	3:	30G06	Non-Archimedean function theory [See also 12J25]; nonstandard function theory [See also 03H05]
03H05:	4:	46S20	Nonstandard functional analysis [See also 03H05]
03H05:	5:	47S20	Nonstandard operator theory [See also 03H05]
03H05:	6:	54Jxx	Nonstandard topology [See also 03H05]
03H05:	7:	54J05	Nonstandard topology [See also 03H05]
03H15:	1:	11U10	Nonstandard arithmetic [See also 03H15]
03H15:	2:	12L15	Nonstandard arithmetic [See also 03H15]
03Hxx:	1:	03C62	Models of arithmetic and set theory [See also 03Hxx]
03Hxx:	2:	13Lxx	Applications of logic to commutative algebra [See also 03Cxx, 03Hxx]
03Hxx:	3:	13L05	Applications of logic to commutative algebra [See also 03Cxx, 03Hxx]
05A10:	1:	11B65	Binomial coefficients; factorials; q -identities [See also 05A10 , 05A30]
05A17:	1:	11P81	Elementary theory of partitions [See also 05A17]
05A30:	1:	11B65	Binomial coefficients; factorials; q -identities [See also 05A10, 05A30]
05Axx:	1:	33-XX	Special functions (33-XX deals with the properties of functions as functions) { For orthogonal functions, see 42Cxx; for aspects of combinatorics see 05Axx ; for number-theoretic aspects see 11-XX; for representation theory see 22Exx }
05B05:	1:	51E05	General block designs [See also 05B05]
05B10:	1:	11B13	Additive bases, including sumsets [See also 05B10]
05B25:	1:	51D20	Combinatorial geometries [See also 05B25 , 05B35]
05B30:	1:	05C51	Graph designs and isomomorphic decomposition [See also 05B30]
05B30:	2:	51E30	Other finite incidence structures [See also 05B30]
05B35:	1:	51D20	Combinatorial geometries [See also 05B25, 05B35]
05B35:	2:	51D25	Lattices of subspaces [See also 05B35]
05B35:	3:	52B40	Matroids (realizations in the context of convex polytopes, convexity in combinatorial structures, etc.) [See also 05B35 , 52Cxx]
05B40:	1:	11H31	Lattice packing and covering [See also 05B40 , 52C15, 52C17]
05B40:	2:	52C15	Packing and covering in 2 dimensions [See also 05B40 , 11H31]
05B40:	3:	52C17	Packing and covering in n dimensions [See also 05B40 , 11H31]
05B45:	1:	52C20	Tilings in 2 dimensions [See also 05B45 , 51M20]
05B45:	2:	52C22	Tilings in n dimensions [See also 05B45 , 51M20]
05Bxx:	1:	20B25	Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx , 12F10, 20G40, 20H30, 51-XX]
05Bxx:	2:	20N05	Loops, quasigroups [See also 05Bxx]
05Bxx:	3:	51E20	Combinatorial structures in finite projective spaces [See also 05Bxx]
05Bxx:	4:	62Kxx	Design of experiments [See also 05Bxx]
05Bxx:	5:	94C30	Applications of design theory [See also 05Bxx]
05C12:	1:	46B85	Embeddings of discrete metric spaces into Banach spaces; applications in topology and computer science [See also 05C12 , 68Rxx]
05C25:	1:	20F65	Geometric group theory [See also 05C25 , 20E08, 57Mxx]
05C30:	1:	05Axx	Enumerative combinatorics {For enumeration in graph theory, see 05C30 }
05C55:	1:	05D10	Ramsey theory [See also 05C55]
05C57:	1:	91A43	Games involving graphs [See also 05C57]
05C85:	1:	68Wxx	Algorithms { For numerical algorithms, see 65-XX; for combinatorics and graph theory, see 05C85 , 68Rxx }
05Cxx:	1:	52B05	Combinatorial properties (number of faces, shortest paths, etc.) [See also 05Cxx]
05Cxx:	2:	57M15	Relations with graph theory [See also 05Cxx]
05Cxx:	3:	68R10	Graph theory (including graph drawing) [See also 05Cxx , 90B10, 90B35, 90C35]
05Cxx:	4:	94C15	Applications of graph theory [See also 05Cxx , 68R10]
05D10:	1:	05C55	Generalized Ramsey theory [See also 05D10]

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- 05E30:** 1: 05C07 Vertex degrees [See also **05E30**]
- 06-XX:** 1: 18B35 Preorders, orders and lattices (viewed as categories) [See also **06-XX**]
- 06A11:** 1: 52B20 Lattice polytopes (including relations with commutative algebra and algebraic geometry) [See also **06A11**, 13F20, 13Hxx]
- 06B25:** 1: 03D40 Word problems, etc. [See also **06B25**, 08A50, 20F10, 68R15]
- 06B25:** 2: 08A50 Word problems [See also 03D40, **06B25**, 20F10, 68R15]
- 06B25:** 3: 20F10 Word problems, other decision problems, connections with logic and automata [See also 03B25, 03D05, 03D40, **06B25**, 08A50, 68Q70]
- 06B30:** 1: 06B35 Continuous lattices and posets, applications [See also **06B30**, 06D10, 06F30, 18B35, 22A26, 68Q55]
- 06B30:** 2: 06F30 Topological lattices, order topologies [See also **06B30**, 22A26, 54F05, 54H12]
- 06B30:** 3: 22A26 Topological semilattices, lattices and applications [See also **06B30**, 06B35, 06F30]
- 06B30:** 4: 54F05 Linearly ordered topological spaces, generalized ordered spaces, and partially ordered spaces [See also **06B30**, 06F30]
- 06B30:** 5: 54H12 Topological lattices, etc. [See also **06B30**, 06F30]
- 06B35:** 1: 22A26 Topological semilattices, lattices and applications [See also 06B30, **06B35**, 06F30]
- 06B35:** 2: 68Q55 Semantics [See also 03B70, **06B35**, 18C50]
- 06Bxx:** 1: 03G10 Lattices and related structures [See also **06Bxx**]
- 06C15:** 1: 03G12 Quantum logic [See also **06C15**, 81P10]
- 06C15:** 2: 81P10 Logical foundations of quantum mechanics; quantum logic [See also 03G12, **06C15**]
- 06Cxx:** 1: 51D30 Continuous geometries and related topics [See also **06Cxx**]
- 06D10:** 1: 06B35 Continuous lattices and posets, applications [See also 06B30, **06D10**, 06F30, 18B35, 22A26, 68Q55]
- 06D20:** 1: 03G25 Other algebras related to logic [See also 03F45, **06D20**, 06E25, 06F35]
- 06D25:** 1: 03G20 Łukasiewicz and Post algebras [See also **06D25**, 06D30]
- 06D30:** 1: 03G20 Łukasiewicz and Post algebras [See also 06D25, **06D30**]
- 06E15:** 1: 08C20 Natural dualities for classes of algebras [See also **06E15**, 18A40, 22A30]
- 06E25:** 1: 03F45 Provability logics and related algebras (e.g., diagonalizable algebras) [See also 03B45, 03G25, **06E25**]
- 06E25:** 2: 03G25 Other algebras related to logic [See also 03F45, 06D20, **06E25**, 06F35]
- 06E30:** 1: 94C10 Switching theory, application of Boolean algebra; Boolean functions [See also **06E30**]
- 06Exx:** 1: 03G05 Boolean algebras [See also **06Exx**]
- 06F15:** 1: 20F60 Ordered groups [See mainly **06F15**]
- 06F20:** 1: 46A40 Ordered topological linear spaces, vector lattices [See also **06F20**, 46B40, 46B42]
- 06F25:** 1: 13J25 Ordered rings [See also **06F25**]
- 06F25:** 2: 16W80 Topological and ordered rings and modules [See also **06F25**, 13Jxx]
- 06F30:** 1: 06B30 Topological lattices, order topologies [See also **06F30**, 22A26, 54F05, 54H12]
- 06F30:** 2: 06B35 Continuous lattices and posets, applications [See also 06B30, 06D10, **06F30**, 18B35, 22A26, 68Q55]
- 06F30:** 3: 22A26 Topological semilattices, lattices and applications [See also 06B30, 06B35, **06F30**]
- 06F30:** 4: 54F05 Linearly ordered topological spaces, generalized ordered spaces, and partially ordered spaces [See also 06B30, **06F30**]
- 06F30:** 5: 54H12 Topological lattices, etc. [See also 06B30, **06F30**]
- 06F35:** 1: 03G25 Other algebras related to logic [See also 03F45, 06D20, 06E25, **06F35**]
- 08A50:** 1: 03D40 Word problems, etc. [See also 06B25, **08A50**, 20F10, 68R15]
- 08A50:** 2: 06B25 Free lattices, projective lattices, word problems [See also 03D40, **08A50**, 20F10]
- 08A50:** 3: 20F10 Word problems, other decision problems, connections with logic and automata [See also 03B25, 03D05, 03D40, 06B25, **08A50**, 68Q70]
- 08Axx:** 1: 03C05 Equational classes, universal algebra [See also **08Axx**, 08Bxx, 18C05]
- 08Bxx:** 1: 03C05 Equational classes, universal algebra [See also 08Axx, **08Bxx**, 18C05]
- 08C05:** 1: 18C05 Equational categories [See also 03C05, **08C05**]
- 08C10:** 1: 03C60 Model-theoretic algebra [See also **08C10**, 12Lxx, 13L05]
- 11-04:** 1: 11Yxx Computational number theory [See also **11-04**]
- 11-XX:** 1: 33-XX Special functions (33-XX deals with the properties of functions as functions) { For orthogonal functions, see 42Cxx; for aspects of combinatorics see 05Axx; for number-theoretic aspects see **11-XX**; for representation theory see 22Exx }
- 11A55:** 1: 11J70 Continued fractions and generalizations [See also **11A55**, 11K50]
- 11A55:** 2: 11K50 Metric theory of continued fractions [See also **11A55**, 11J70]
- 11A55:** 3: 30B70 Continued fractions [See also **11A55**, 40A15]
- 11A63:** 1: 11K16 Normal numbers, radix expansions, Pisot numbers, Salem numbers, good lattice points, etc. [See also **11A63**]

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- 11B13:** 1: 05B10 Difference sets (number-theoretic, group-theoretic, etc.) [See also **11B13**]
- 11B13:** 2: 20K01 Finite abelian groups [For sumsets, see **11B13** and 11P70]
- 11B25:** 1: 11N13 Primes in progressions [See also **11B25**]
- 11B65:** 1: 05A10 Factorials, binomial coefficients, combinatorial functions [See also **11B65**, 33Cxx]
- 11C08:** 1: 13B25 Polynomials over commutative rings [See also **11C08**, 11T06, 13F20, 13M10]
- 11C08:** 2: 13F20 Polynomial rings and ideals; rings of integer-valued polynomials [See also **11C08**, 13B25]
- 11C20:** 1: 15B36 Matrices of integers [See also **11C20**]
- 11D75:** 1: 11J25 Diophantine inequalities [See also **11D75**]
- 11D85:** 1: 11P55 Applications of the Hardy-Littlewood method [See also **11D85**]
- 11Dxx:** 1: 11Gxx Arithmetic algebraic geometry (Diophantine geometry) [See also **11Dxx**, 14Gxx, 14Kxx]
- 11Dxx:** 2: 14Gxx Arithmetic problems. Diophantine geometry [See also **11Dxx**, 11Gxx]
- 11Dxx:** 3: 14H25 Arithmetic ground fields [See also **11Dxx**, 11G05, 14Gxx]
- 11Dxx:** 4: 14J20 Arithmetic ground fields [See also **11Dxx**, 11G25, 11G35, 14Gxx]
- 11Dxx:** 5: 14K15 Arithmetic ground fields [See also **11Dxx**, 11Fxx, 11Gxx, 14Gxx]
- 11E45:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see **11E45** }
- 11E45:** 2: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also **11E45**, 11F66, 11F70, 11F72 }
- 11E57:** 1: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see **11E57**, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, 22E50, 22E55 }
- 11E81:** 1: 19G12 Witt groups of rings [See also **11E81**]
- 11E81:** 2: 19G24 L -theory of group rings [See also **11E81**]
- 11E88:** 1: 16W55 “Super” (or “skew”) structure [See also 17A70, 17Bxx, 17C70] { For exterior algebras, see 15A75; for Clifford algebras, see **11E88**, 15A66 }
- 11Exx:** 1: 12D15 Fields related with sums of squares (formally real fields, Pythagorean fields, etc.) [See also **11Exx**]
- 11Exx:** 2: 15A63 Quadratic and bilinear forms, inner products [See mainly **11Exx**]
- 11Exx:** 3: 18F25 Algebraic K -theory and L -theory [See also **11Exx**, 11R70, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, 46L80, 57R65, 57R67]
- 11Exx:** 4: 19Gxx K -theory of forms [See also **11Exx**]
- 11F06:** 1: 20H05 Unimodular groups, congruence subgroups [See also **11F06**, 19B37, 22E40, 51F20]
- 11F06:** 2: 20H10 Fuchsian groups and their generalizations [See also **11F06**, 22E40, 30F35, 32Nxx]
- 11F30:** 1: 42A16 Fourier coefficients, Fourier series of functions with special properties, special Fourier series { For automorphic theory, see mainly **11F30** }
- 11F30:** 2: 42Bxx Harmonic analysis in several variables { For automorphic theory, see mainly **11F30** }
- 11F41:** 1: 14G35 Modular and Shimura varieties [See also **11F41**, 11F46, 11G18]
- 11F46:** 1: 14G35 Modular and Shimura varieties [See also 11F41, **11F46**, 11G18]
- 11F66:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, **11F66**, 11F70, 11F72 }
- 11F70:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, **11F70**, 11F72 }
- 11F72:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, 11F70, **11F72** }
- 11Fxx:** 1: 11N75 Applications of automorphic functions and forms to multiplicative problems [See also **11Fxx**]
- 11Fxx:** 2: 11R39 Langlands-Weil conjectures, nonabelian class field theory [See also **11Fxx**, 22E55]
- 11Fxx:** 3: 11S37 Langlands-Weil conjectures, nonabelian class field theory [See also **11Fxx**, 22E50]
- 11Fxx:** 4: 14K15 Arithmetic ground fields [See also 11Dxx, **11Fxx**, 11Gxx, 14Gxx]
- 11Fxx:** 5: 30F35 Fuchsian groups and automorphic functions [See also **11Fxx**, 20H10, 22E40, 32Gxx, 32Nxx]
- 11Fxx:** 6: 32Nxx Automorphic functions [See also **11Fxx**, 20H10, 22E40, 30F35]
- 11G05:** 1: 14H25 Arithmetic ground fields [See also 11Dxx, **11G05**, 14Gxx]
- 11G05:** 2: 14H52 Elliptic curves [See also **11G05**, 11G07, 14Kxx]
- 11G07:** 1: 14H52 Elliptic curves [See also 11G05, **11G07**, 14Kxx]
- 11G15:** 1: 11Rxx Algebraic number theory: global fields { For complex multiplication, see **11G15** }
- 11G15:** 2: 14K10 Algebraic moduli, classification [See also **11G15**]
- 11G15:** 3: 14K22 Complex multiplication [See also **11G15**]
- 11G18:** 1: 14G35 Modular and Shimura varieties [See also 11F41, 11F46, **11G18**]
- 11G25:** 1: 14J20 Arithmetic ground fields [See also 11Dxx, **11G25**, 11G35, 14Gxx]
- 11G32:** 1: 14H57 Dessins d’enfants theory { For arithmetic aspects, see **11G32** }

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11G35:	1:	14J20	Arithmetic ground fields [See also 11Dxx, 11G25, 11G35 , 14Gxx]
11G40:	1:	14G10	Zeta-functions and related questions [See also 11G40] (Birch-Swinnerton-Dyer conjecture)
11G40:	2:	19F27	Étale cohomology, higher regulators, zeta and L -functions [See also 11G40 , 11R42, 11S40, 14F20, 14G10]
11G42:	1:	14J33	Mirror symmetry [See also 11G42 , 53D37]
11G45:	1:	19F05	Generalized class field theory [See also 11G45]
11G50:	1:	14G40	Arithmetic varieties and schemes; Arakelov theory; heights [See also 11G50 , 37P30]
11G50:	2:	37P30	Height functions; Green functions; invariant measures [See also 11G50 , 14G40]
11Gxx:	1:	11Dxx	Diophantine equations [See also 11Gxx , 14Gxx]
11Gxx:	2:	14Gxx	Arithmetic problems. Diophantine geometry [See also 11Dxx, 11Gxx]
11Gxx:	3:	14K15	Arithmetic ground fields [See also 11Dxx, 11Fxx, 11Gxx , 14Gxx]
11H06:	1:	52C05	Lattices and convex bodies in 2 dimensions [See also 11H06 , 11H31, 11P21]
11H06:	2:	52C07	Lattices and convex bodies in n dimensions [See also 11H06 , 11H31, 11P21]
11H31:	1:	05B40	Packing and covering [See also 11H31 , 52C15, 52C17]
11H31:	2:	52C05	Lattices and convex bodies in 2 dimensions [See also 11H06, 11H31 , 11P21]
11H31:	3:	52C07	Lattices and convex bodies in n dimensions [See also 11H06, 11H31 , 11P21]
11H31:	4:	52C15	Packing and covering in 2 dimensions [See also 05B40, 11H31]
11H31:	5:	52C17	Packing and covering in n dimensions [See also 05B40, 11H31]
11H31:	6:	94B75	Applications of the theory of convex sets and geometry of numbers (covering radius, etc.) [See also 11H31]
11H56:	1:	20Gxx	Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56 ; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, 22E50, 22E55 }
11Hxx:	1:	52C10	Erdős problems and related topics of discrete geometry [See also 11Hxx]
11J25:	1:	11D75	Diophantine inequalities [See also 11J25]
11J70:	1:	11A55	Continued fractions { For approximation results, see 11J70 } [See also 11K50, 30B70, 40A15]
11J70:	2:	11K50	Metric theory of continued fractions [See also 11A55, 11J70]
11J71:	1:	11K06	General theory of distribution modulo 1 [See also 11J71]
11Jxx:	1:	11K60	Diophantine approximation [See also 11Jxx]
11K06:	1:	11J71	Distribution modulo one [See also 11K06]
11K16:	1:	11A63	Radix representation; digital problems { For metric results, see 11K16 }
11K50:	1:	11A55	Continued fractions { For approximation results, see 11J70 } [See also 11K50 , 30B70, 40A15]
11K50:	2:	11J70	Continued fractions and generalizations [See also 11A55, 11K50]
11K50:	3:	28Dxx	Measure-theoretic ergodic theory [See also 11K50 , 11K55, 22D40, 37Axx, 47A35, 54H20, 60Fxx, 60G10]
11K55:	1:	28Dxx	Measure-theoretic ergodic theory [See also 11K50, 11K55 , 22D40, 37Axx, 47A35, 54H20, 60Fxx, 60G10]
11K60:	1:	11Jxx	Diophantine approximation, transcendental number theory [See also 11K60]
11Kxx:	1:	37A45	Relations with number theory and harmonic analysis [See also 11Kxx]
11Kxx:	2:	60-XX	Probability theory and stochastic processes { For additional applications, see 11Kxx , 62-XX, 90-XX, 91-XX, 92-XX, 93-XX, 94-XX }
11M41:	1:	11R42	Zeta functions and L -functions of number fields [See also 11M41 , 19F27]
11M41:	2:	11S40	Zeta functions and L -functions [See also 11M41 , 19F27]
11M41:	3:	30B50	Dirichlet series and other series expansions, exponential series [See also 11M41 , 42-XX]
11N05:	1:	11R44	Distribution of prime ideals [See also 11N05]
11N13:	1:	11B25	Arithmetic progressions [See also 11N13]
11N99:	1:	11K55	Metric theory of other algorithms and expansions; measure and Hausdorff dimension [See also 11N99 , 28Dxx]
11Nxx:	1:	11K38	Irregularities of distribution, discrepancy [See also 11Nxx]
11Nxx:	2:	11K65	Arithmetic functions [See also 11Nxx]
11Nxx:	3:	11R47	Other analytic theory [See also 11Nxx]
11P21:	1:	11H06	Lattices and convex bodies [See also 11P21 , 52C05, 52C07]
11P21:	2:	52C05	Lattices and convex bodies in 2 dimensions [See also 11H06, 11H31, 11P21]
11P21:	3:	52C07	Lattices and convex bodies in n dimensions [See also 11H06, 11H31, 11P21]
11P55:	1:	11D72	Equations in many variables [See also 11P55]
11P55:	2:	11D85	Representation problems [See also 11P55]
11P70:	1:	20K01	Finite abelian groups [For sumsets, see 11B13 and 11P70]
11P81:	1:	05A17	Partitions of integers [See also 11P81 , 11P82, 11P83]

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- 11P82:** 1: 05A17 Partitions of integers [See also 11P81, **11P82**, 11P83]
- 11P83:** 1: 05A17 Partitions of integers [See also 11P81, 11P82, **11P83**]
- 11R04:** 1: 11Axx Elementary number theory { For analogues in number fields, see **11R04** }
- 11R27:** 1: 11G16 Elliptic and modular units [See also **11R27**]
- 11R29:** 1: 13C20 Class groups [See also **11R29**]
- 11R37:** 1: 11G45 Geometric class field theory [See also **11R37**, 14C35, 19F05]
- 11R37:** 2: 19F15 Symbols and arithmetic [See also **11R37**]
- 11R39:** 1: 11Fxx Discontinuous groups and automorphic forms [See also **11R39**, 11S37, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 11R42:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see **11R42**, 11R52, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, 11F70, 11F72 }
- 11R42:** 2: 19F27 Étale cohomology, higher regulators, zeta and L -functions [See also 11G40, **11R42**, 11S40, 14F20, 14G10]
- 11R52:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, **11R52**, 11S40, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, 11F70, 11F72 }
- 11R52:** 2: 11S45 Algebras and orders, and their zeta functions [See also **11R52**, 11R54, 16Hxx, 16Kxx]
- 11R52:** 3: 12E15 Skew fields, division rings [See also **11R52**, 11R54, 11S45, 16Kxx]
- 11R52:** 4: 16Hxx Algebras and orders { For arithmetic aspects, see **11R52**, 11R54, 11S45 }
- 11R54:** 1: 11S45 Algebras and orders, and their zeta functions [See also 11R52, **11R54**, 16Hxx, 16Kxx]
- 11R54:** 2: 12E15 Skew fields, division rings [See also 11R52, **11R54**, 11S45, 16Kxx]
- 11R54:** 3: 16Hxx Algebras and orders { For arithmetic aspects, see 11R52, **11R54**, 11S45 }
- 11R56:** 1: 43A70 Analysis on specific locally compact and other abelian groups [See also **11R56**, 22B05]
- 11R58:** 1: 14H05 Algebraic functions; function fields [See also **11R58**]
- 11R70:** 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, **11R70**, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, 46L80, 57R65, 57R67]
- 11R70:** 2: 19Fxx K -theory in number theory [See also **11R70**, 11S70]
- 11S15:** 1: 14E22 Ramification problems [See also **11S15**]
- 11S37:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, **11S37**, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 11S40:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, **11S40**, 11S45; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, 11F70, 11F72 }
- 11S40:** 2: 19F27 Étale cohomology, higher regulators, zeta and L -functions [See also 11G40, 11R42, **11S40**, 14F20, 14G10]
- 11S45:** 1: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, **11S45**; for algebro-geometric methods, see 14G10; see also 11E45, 11F66, 11F70, 11F72 }
- 11S45:** 2: 11R54 Other algebras and orders, and their zeta and L -functions [See also **11S45**, 16Hxx, 16Kxx]
- 11S45:** 3: 12E15 Skew fields, division rings [See also 11R52, 11R54, **11S45**, 16Kxx]
- 11S45:** 4: 16Hxx Algebras and orders { For arithmetic aspects, see 11R52, 11R54, **11S45** }
- 11S70:** 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, **11S70**, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, 46L80, 57R65, 57R67]
- 11S70:** 2: 19Fxx K -theory in number theory [See also 11R70, **11S70**]
- 11S80:** 1: 12H25 p -adic differential equations [See also **11S80**, 14G20]
- 11T06:** 1: 13B25 Polynomials over commutative rings [See also 11C08, **11T06**, 13F20, 13M10]
- 11T71:** 1: 94A60 Cryptography [See also **11T71**, 14G50, 68P25, 81P94]
- 11T71:** 2: 94B27 Geometric methods (including applications of algebraic geometry) [See also **11T71**, 14G50]
- 11T71:** 3: 94B40 Arithmetic codes [See also **11T71**, 14G50]
- 11Txx:** 1: 05-XX Combinatorics { For finite fields, see **11Txx** }
- 11Txx:** 2: 11Lxx Exponential sums and character sums { For finite fields, see **11Txx** }
- 11Txx:** 3: 13Mxx Finite commutative rings { For number-theoretic aspects, see **11Txx** }
- 11Txx:** 4: 16P10 Finite rings and finite-dimensional algebras { For semisimple, see 16K20; for commutative, see **11Txx**, 13Mxx }
- 11U05:** 1: 03B25 Decidability of theories and sets of sentences [See also **11U05**, 12L05, 20F10]
- 11U10:** 1: 03H15 Nonstandard models of arithmetic [See also **11U10**, 12L15, 13L05]
- 11Yxx:** 1: 68W30 Symbolic computation and algebraic computation [See also **11Yxx**, 12Y05, 13Pxx, 14Qxx, 16Z05, 17-08, 33F10]
- 12-XX:** 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, **12-XX**, 13D15, 14Cxx, 16E20, 19-XX, 46L80, 57R65, 57R67]
- 12D10:** 1: 26C10 Polynomials: location of zeros [See also **12D10**, 30C15, 65H05]
- 12D10:** 2: 30C15 Zeros of polynomials, rational functions, and other analytic functions (e.g. zeros of

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- functions with bounded Dirichlet integral) { For algebraic theory, see **12D10**; for real methods, see 26C10 }
- 12D15:** 1: 13J30 Real algebra [See also **12D15**, 14Pxx]
 - 12Dxx:** 1: 14P05 Real algebraic sets [See also **12Dxx**]
 - 12Dxx:** 2: 26C05 Polynomials: analytic properties, etc. [See also **12Dxx**, 12Exx]
 - 12E15:** 1: 16Kxx Division rings and semisimple Artin rings [See also **12E15**, 15A30]
 - 12Exx:** 1: 26C05 Polynomials: analytic properties, etc. [See also 12Dxx, **12Exx**]
 - 12F10:** 1: 20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, **12F10**, 20G40, 20H30, 51-XX]
 - 12F10:** 2: 20B27 Infinite automorphism groups [See also **12F10**]
 - 12G05:** 1: 14F22 Brauer groups of schemes [See also **12G05**, 16K50]
 - 12G05:** 2: 16K50 Brauer groups [See also **12G05**, 14F22]
 - 12Gxx:** 1: 11R34 Galois cohomology [See also **12Gxx**, 19A31]
 - 12Gxx:** 2: 11S25 Galois cohomology [See also **12Gxx**, 16H05]
 - 12H05:** 1: 13Nxx Differential algebra [See also **12H05**, 14F10]
 - 12J15:** 1: 06F25 Ordered rings, algebras, modules { For ordered fields, see **12J15**; see also 13J25, 16W80 }
 - 12J15:** 2: 11R80 Totally real fields [See also **12J15**]
 - 12J20:** 1: 13A18 Valuations and their generalizations [See also **12J20**]
 - 12J25:** 1: 26E30 Non-Archimedean analysis [See also **12J25**]
 - 12J25:** 2: 30G06 Non-Archimedean function theory [See also **12J25**]; nonstandard function theory [See also 03H05]
 - 12J25:** 3: 46S10 Functional analysis over fields other than **R** or **C** or the quaternions; non-Archimedean functional analysis [See also **12J25**, 32P05]
 - 12Jxx:** 1: 22Axx Topological and differentiable algebraic systems { For topological rings and fields, see **12Jxx**, 13Jxx, 16W80 }
 - 12Jxx:** 2: 54H13 Topological fields, rings, etc. [See also **12Jxx**] { For algebraic aspects, see 13Jxx, 16W80 }
 - 12K05:** 1: 16Y30 Near-rings [See also **12K05**]
 - 12K05:** 2: 51J20 Representation by near-fields and near-algebras [See also **12K05**, 16Y30]
 - 12K10:** 1: 14Txx Tropical geometry [See also **12K10**, 14M25, 14N10, 52B20]
 - 12K10:** 2: 14T05 Tropical geometry [See also **12K10**, 14M25, 14N10, 52B20]
 - 12K10:** 3: 16Y60 Semirings [See also **12K10**]
 - 12Kxx:** 1: 51A25 Algebraization [See also **12Kxx**, 20N05]
 - 12L05:** 1: 03B25 Decidability of theories and sets of sentences [See also 11U05, **12L05**, 20F10]
 - 12L15:** 1: 03H15 Nonstandard models of arithmetic [See also 11U10, **12L15**, 13L05]
 - 12Lxx:** 1: 03C60 Model-theoretic algebra [See also 08C10, **12Lxx**, 13L05]
 - 12Y05:** 1: 13P05 Polynomials, factorization [See also **12Y05**]
 - 12Y05:** 2: 14Qxx Computational aspects in algebraic geometry [See also **12Y05**, 13Pxx, 68W30]
 - 12Y05:** 3: 68W30 Symbolic computation and algebraic computation [See also 11Yxx, **12Y05**, 13Pxx, 14Qxx, 16Z05, 17-08, 33F10]
 - 13-XX:** 1: 14A05 Relevant commutative algebra [See also **13-XX**]
 - 13-XX:** 2: 16-XX Associative rings and algebras { For the commutative case, see **13-XX** }
 - 13-XX:** 3: 32Bxx Local analytic geometry [See also **13-XX** and 14-XX]
 - 13-XX:** 4: 46H25 Normed modules and Banach modules, topological modules (if not placed in **13-XX** or 16-XX)
 - 13A05:** 1: 13F15 Rings defined by factorization properties (e.g., atomic, factorial, half-factorial) [See also **13A05**, 14M05]
 - 13A18:** 1: 12J20 General valuation theory [See also **13A18**]
 - 13A18:** 2: 13F30 Valuation rings [See also **13A18**]
 - 13A35:** 1: 13B22 Integral closure of rings and ideals [See also **13A35**]; integrally closed rings, related rings (Japanese, etc.)
 - 13A50:** 1: 14L24 Geometric invariant theory [See also **13A50**]
 - 13A50:** 2: 14L30 Group actions on varieties or schemes (quotients) [See also **13A50**, 14L24]
 - 13A50:** 3: 14R20 Group actions on affine varieties [See also **13A50**, 14L30]
 - 13A50:** 4: 15A72 Vector and tensor algebra, theory of invariants [See also **13A50**, 14L24]
 - 13B22:** 1: 13A35 Characteristic p methods (Frobenius endomorphism) and reduction to characteristic p ; tight closure [See also **13B22**]
 - 13B25:** 1: 13F20 Polynomial rings and ideals; rings of integer-valued polynomials [See also 11C08, **13B25**]
 - 13B30:** 1: 16S85 Rings of fractions and localizations [See also **13B30**]
 - 13B35:** 1: 13J10 Complete rings, completion [See also **13B35**]
 - 13B40:** 1: 13J15 Henselian rings [See also **13B40**]
 - 13B40:** 2: 14B12 Local deformation theory, Artin approximation, etc. [See also **13B40**, 13D10]

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13B40:	3:	14B25	Local structure of morphisms: étale, flat, etc. [See also 13B40]
13C10:	1:	18G05	Projectives and injectives [See also 13C10 , 13C11, 16D40, 16D50]
13C10:	2:	19A13	Stability for projective modules [See also 13C10]
13C11:	1:	18G05	Projectives and injectives [See also 13C10, 13C11 , 16D40, 16D50]
13C12:	1:	13D30	Torsion theory [See also 13C12 , 18E40]
13C40:	1:	14M06	Linkage [See also 13C40]
13C40:	2:	14M10	Complete intersections [See also 13C40]
13C40:	3:	14M12	Determinantal varieties [See also 13C40]
13D02:	1:	18G10	Resolutions; derived functors [See also 13D02 , 16E05, 18E25]
13D05:	1:	18G20	Homological dimension [See also 13D05 , 16E10]
13D10:	1:	14B10	Infinitesimal methods [See also 13D10]
13D10:	2:	14B12	Local deformation theory, Artin approximation, etc. [See also 13B40, 13D10]
13D10:	3:	14D15	Formal methods; deformations [See also 13D10 , 14B07, 32Gxx]
13D10:	4:	16S80	Deformations of rings [See also 13D10 , 14D15]
13D10:	5:	32G05	Deformations of complex structures [See also 13D10 , 16S80, 58H10, 58H15]
13D15:	1:	18F25	Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15 , 14Cxx, 16E20, 19-XX, 46L80, 57R65, 57R67]
13D15:	2:	18F30	Grothendieck groups [See also 13D15 , 16E20, 19Axx]
13D15:	3:	19Axx	Grothendieck groups and K_0 [See also 13D15 , 18F30]
13D15:	4:	19D50	Computations of higher K -theory of rings [See also 13D15 , 16E20]
13D30:	1:	16S90	Torsion theories; radicals on module categories [See also 13D30 , 18E40] { For radicals of rings, see 16Nxx }
13D30:	2:	18E40	Torsion theories, radicals [See also 13D30 , 16S90]
13D45:	1:	14B15	Local cohomology [See also 13D45 , 32C36]
13Dxx:	1:	13P20	Computational homological algebra [See also 13Dxx]
13Dxx:	2:	14Fxx	(Co)homology theory [See also 13Dxx]
13Dxx:	3:	16Exx	Homological methods { For commutative rings, see 13Dxx ; for general categories, see 18Gxx }
13Dxx:	4:	18-XX	Category theory; homological algebra { For commutative rings see 13Dxx , for associative rings 16Exx, for groups 20Jxx, for topological groups and related structures 57Txx; see also 55Nxx and 55Uxx for algebraic topology }
13Dxx:	5:	18Gxx	Homological algebra [See also 13Dxx , 16Exx, 20Jxx, 55Nxx, 55Uxx, 57Txx]
13F15:	1:	13A05	Divisibility; factorizations [See also 13F15]
13F20:	1:	11C08	Polynomials [See also 13F20]
13F20:	2:	13B25	Polynomials over commutative rings [See also 11C08, 11T06, 13F20 , 13M10]
13F20:	3:	52B20	Lattice polytopes (including relations with commutative algebra and algebraic geometry) [See also 06A11, 13F20 , 13Hxx]
13F25:	1:	13J05	Power series rings [See also 13F25]
13F45:	1:	14M05	Varieties defined by ring conditions (factorial, Cohen-Macaulay, seminormal) [See also 13F45 , 13H10]
13H10:	1:	13C14	Cohen-Macaulay modules [See also 13H10]
13H10:	2:	14M05	Varieties defined by ring conditions (factorial, Cohen-Macaulay, seminormal) [See also 13F45, 13H10]
13H15:	1:	14C17	Intersection theory, characteristic classes, intersection multiplicities [See also 13H15]
13Hxx:	1:	14H20	Singularities, local rings [See also 13Hxx , 14B05]
13Hxx:	2:	52B20	Lattice polytopes (including relations with commutative algebra and algebraic geometry) [See also 06A11, 13F20, 13Hxx]
13J05:	1:	13F25	Formal power series rings [See also 13J05]
13J10:	1:	13B35	Completion [See also 13J10]
13J15:	1:	13B40	Étale and flat extensions; Henselization; Artin approximation [See also 13J15 , 14B12, 14B25]
13J25:	1:	06F25	Ordered rings, algebras, modules { For ordered fields, see 12J15; see also 13J25 , 16W80 }
13Jxx:	1:	16W60	Valuations, completions, formal power series and related constructions [See also 13Jxx]
13Jxx:	2:	16W80	Topological and ordered rings and modules [See also 06F25, 13Jxx]
13Jxx:	3:	22Axx	Topological and differentiable algebraic systems { For topological rings and fields, see 12Jxx, 13Jxx , 16W80 }
13Jxx:	4:	54H13	Topological fields, rings, etc. [See also 12Jxx] { For algebraic aspects, see 13Jxx , 16W80 }
13L05:	1:	03C60	Model-theoretic algebra [See also 08C10, 12Lxx, 13L05]
13L05:	2:	03H15	Nonstandard models of arithmetic [See also 11U10, 12L15, 13L05]
13M10:	1:	13B25	Polynomials over commutative rings [See also 11C08, 11T06, 13F20, 13M10]

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13Mxx:	1:	16P10	Finite rings and finite-dimensional algebras { For semisimple, see 16K20; for commutative, see 11Txx, 13Mxx }
13N10:	1:	16S32	Rings of differential operators [See also 13N10 , 32C38]
13Nxx:	1:	12H05	Differential algebra [See also 13Nxx]
13Nxx:	2:	14F10	Differentials and other special sheaves; D-modules; Bernstein-Sato ideals and polynomials [See also 13Nxx , 32C38]
13Pxx:	1:	14Qxx	Computational aspects in algebraic geometry [See also 12Y05, 13Pxx , 68W30]
13Pxx:	2:	68W30	Symbolic computation and algebraic computation [See also 11Yxx, 12Y05, 13Pxx , 14Qxx, 16Z05, 17-08, 33F10]
14-XX:	1:	11R58	Arithmetic theory of algebraic function fields [See also 14-XX]
14-XX:	2:	32Bxx	Local analytic geometry [See also 13-XX and 14-XX]
14-XX:	3:	51-XX	Geometry { For algebraic geometry, see 14-XX }
14-XX:	4:	51H30	Geometries with algebraic manifold structure [See also 14-XX]
14A22:	1:	16S38	Rings arising from non-commutative algebraic geometry [See also 14A22]
14A22:	2:	32C11	Complex supergeometry [See also 14A22 , 14M30, 58A50]
14A22:	3:	58A50	Supermanifolds and graded manifolds [See also 14A22 , 32C11]
14B05:	1:	14E15	Global theory and resolution of singularities [See also 14B05 , 32S20, 32S45]
14B05:	2:	14H20	Singularities, local rings [See also 13Hxx, 14B05]
14B05:	3:	14J17	Singularities [See also 14B05 , 14E15]
14B07:	1:	14D15	Formal methods; deformations [See also 13D10, 14B07 , 32Gxx]
14B07:	2:	32S30	Deformations of singularities; vanishing cycles [See also 14B07]
14B10:	1:	13D10	Deformations and infinitesimal methods [See also 14B10 , 14B12, 14D15, 32Gxx]
14B12:	1:	13B40	Étale and flat extensions; Henselization; Artin approximation [See also 13J15, 14B12 , 14B25]
14B12:	2:	13D10	Deformations and infinitesimal methods [See also 14B10, 14B12 , 14D15, 32Gxx]
14B15:	1:	13D45	Local cohomology [See also 14B15]
14B25:	1:	13B40	Étale and flat extensions; Henselization; Artin approximation [See also 13J15, 14B12, 14B25]
14C17:	1:	13H15	Multiplicity theory and related topics [See also 14C17]
14C21:	1:	53A60	Geometry of webs [See also 14C21 , 20N05]
14C25:	1:	19E15	Algebraic cycles and motivic cohomology [See also 14C25 , 14C35]
14C30:	1:	14F40	de Rham cohomology [See also 14C30 , 32C35, 32L10]
14C30:	2:	32J25	Transcendental methods of algebraic geometry [See also 14C30]
14C30:	3:	32S35	Mixed Hodge theory of singular varieties [See also 14C30 , 14D07]
14C30:	4:	58A14	Hodge theory [See also 14C30 , 14Fxx, 32J25, 32S35]
14C35:	1:	11G45	Geometric class field theory [See also 11R37, 14C35 , 19F05]
14C35:	2:	13D15	Grothendieck groups, K -theory [See also 14C35 , 18F30, 19Axx, 19D50]
14C35:	3:	19E08	K -theory of schemes [See also 14C35]
14C35:	4:	19E15	Algebraic cycles and motivic cohomology [See also 14C25, 14C35]
14Cxx:	1:	18F25	Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx , 16E20, 19-XX, 46L80, 57R65, 57R67]
14D05:	1:	32G20	Period matrices, variation of Hodge structure; degenerations [See also 14D05 , 14D07, 14K30]
14D05:	2:	81Q30	Feynman integrals and graphs; applications of algebraic topology and algebraic geometry [See also 14D05 , 32S40]
14D06:	1:	14R25	Affine fibrations [See also 14D06]
14D07:	1:	14C30	Transcendental methods, Hodge theory [See also 14D07 , 32G20, 32J25, 32S35], Hodge conjecture
14D07:	2:	32G20	Period matrices, variation of Hodge structure; degenerations [See also 14D05, 14D07 , 14K30]
14D07:	3:	32S35	Mixed Hodge theory of singular varieties [See also 14C30, 14D07]
14D15:	1:	13D10	Deformations and infinitesimal methods [See also 14B10, 14B12, 14D15 , 32Gxx]
14D15:	2:	14B07	Deformations of singularities [See also 14D15 , 32S30]
14D15:	3:	16S80	Deformations of rings [See also 13D10, 14D15]
14D20:	1:	14H60	Vector bundles on curves and their moduli [See also 14D20 , 14F05]
14D20:	2:	14J60	Vector bundles on surfaces and higher-dimensional varieties, and their moduli [See also 14D20 , 14F05, 32Lxx]
14D20:	3:	32G13	Analytic moduli problems { For algebraic moduli problems, see 14D20 , 14D22, 14H10, 14J10 } [See also 14H15, 14J15]
14D22:	1:	32G13	Analytic moduli problems { For algebraic moduli problems, see 14D20, 14D22 , 14H10, 14J10 } [See also 14H15, 14J15]

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- 14D24:** 1: 22E57 Geometric Langlands program: representation-theoretic aspects [See also **14D24**]
- 14E08:** 1: 14M20 Rational and unirational varieties [See also **14E08**]
- 14E15:** 1: 14B05 Singularities [See also **14E15**, 14H20, 14J17, 32Sxx, 58Kxx]
- 14E15:** 2: 14J17 Singularities [See also 14B05, **14E15**]
- 14E15:** 3: 32S15 Equisingularity (topological and analytic) [See also **14E15**]
- 14E15:** 4: 32S20 Global theory of singularities; cohomological properties [See also **14E15**]
- 14E15:** 5: 32S45 Modifications; resolution of singularities [See also **14E15**]
- 14E20:** 1: 14H30 Coverings, fundamental group [See also **14E20**, 14F35]
- 14F05:** 1: 14H60 Vector bundles on curves and their moduli [See also 14D20, **14F05**]
- 14F05:** 2: 14J60 Vector bundles on surfaces and higher-dimensional varieties, and their moduli [See also 14D20, **14F05**, 32Lxx]
- 14F05:** 3: 18F20 Presheaves and sheaves [See also **14F05**, 32C35, 32L10, 54B40, 55N30]
- 14F05:** 4: 32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also **14F05**, 18F20, 55N30]
- 14F05:** 5: 46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also **14F05**, 18Fxx, 19Kxx, 32Cxx, 32Lxx, 46L80, 46M15, 46M18, 55Rxx]
- 14F10:** 1: 13Nxx Differential algebra [See also 12H05, **14F10**]
- 14F10:** 2: 32C38 Sheaves of differential operators and their modules, D -modules [See also **14F10**, 16S32, 35A27, 58J15]
- 14F20:** 1: 18F10 Grothendieck topologies [See also **14F20**]
- 14F20:** 2: 19F27 Étale cohomology, higher regulators, zeta and L -functions [See also 11G40, 11R42, 11S40, **14F20**, 14G10]
- 14F22:** 1: 12G05 Galois cohomology [See also **14F22**, 16Hxx, 16K50]
- 14F22:** 2: 16K50 Brauer groups [See also 12G05, **14F22**]
- 14F35:** 1: 14H30 Coverings, fundamental group [See also 14E20, **14F35**]
- 14Fxx:** 1: 19E20 Relations with cohomology theories [See also **14Fxx**]
- 14Fxx:** 2: 32C35 Analytic sheaves and cohomology groups [See also **14Fxx**, 18F20, 55N30]
- 14Fxx:** 3: 58A12 de Rham theory [See also **14Fxx**]
- 14Fxx:** 4: 58A14 Hodge theory [See also 14C30, **14Fxx**, 32J25, 32S35]
- 14G10:** 1: 11G40 L -functions of varieties over global fields; Birch-Swinnerton-Dyer conjecture [See also **14G10**]
- 14G10:** 2: 11M41 Other Dirichlet series and zeta functions { For local and global ground fields, see 11R42, 11R52, 11S40, 11S45; for algebro-geometric methods, see **14G10**; see also 11E45, 11F66, 11F70, 11F72 }
- 14G10:** 3: 19F27 Étale cohomology, higher regulators, zeta and L -functions [See also 11G40, 11R42, 11S40, 14F20, **14G10**]
- 14G15:** 1: 11G25 Varieties over finite and local fields [See also **14G15**, 14G20]
- 14G20:** 1: 11F33 Congruences for modular and p -adic modular forms [See also **14G20**, 22E50]
- 14G20:** 2: 11F85 p -adic theory, local fields [See also **14G20**, 22E50]
- 14G20:** 3: 11G07 Elliptic curves over local fields [See also **14G20**, 14H52]
- 14G20:** 4: 11G25 Varieties over finite and local fields [See also 14G15, **14G20**]
- 14G20:** 5: 12H25 p -adic differential equations [See also 11S80, **14G20**]
- 14G25:** 1: 11G35 Varieties over global fields [See also **14G25**]
- 14G35:** 1: 11G18 Arithmetic aspects of modular and Shimura varieties [See also **14G35**]
- 14G35:** 2: 14J25 Special surfaces { For Hilbert modular surfaces, see **14G35** }
- 14G40:** 1: 11G50 Heights [See also **14G40**, 37P30]
- 14G40:** 2: 37P30 Height functions; Green functions; invariant measures [See also 11G50, **14G40**]
- 14G50:** 1: 94A60 Cryptography [See also 11T71, **14G50**, 68P25, 81P94]
- 14G50:** 2: 94B27 Geometric methods (including applications of algebraic geometry) [See also 11T71, **14G50**]
- 14G50:** 3: 94B40 Arithmetic codes [See also 11T71, **14G50**]
- 14Gxx:** 1: 11Dxx Diophantine equations [See also 11Gxx, **14Gxx**]
- 14Gxx:** 2: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, **14Gxx**, 14Kxx, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 14Gxx:** 3: 11Gxx Arithmetic algebraic geometry (Diophantine geometry) [See also 11Dxx, **14Gxx**, 14Kxx]
- 14Gxx:** 4: 14H25 Arithmetic ground fields [See also 11Dxx, 11G05, **14Gxx**]
- 14Gxx:** 5: 14J20 Arithmetic ground fields [See also 11Dxx, 11G25, 11G35, **14Gxx**]
- 14Gxx:** 6: 14K15 Arithmetic ground fields [See also 11Dxx, 11Fxx, 11Gxx, **14Gxx**]
- 14H10:** 1: 32G13 Analytic moduli problems { For algebraic moduli problems, see 14D20, 14D22, **14H10**, 14J10 } [See also 14H15, 14J15]
- 14H15:** 1: 30F10 Compact Riemann surfaces and uniformization [See also **14H15**, 32G15]
- 14H15:** 2: 32G13 Analytic moduli problems { For algebraic moduli problems, see 14D20, 14D22, 14H10,

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- 14J10 } [See also **14H15**, 14J15]
- 14H15:** 3: 32G15 Moduli of Riemann surfaces, Teichmüller theory [See also **14H15**, 30Fxx]
- 14H20:** 1: 14B05 Singularities [See also 14E15, **14H20**, 14J17, 32Sxx, 58Kxx]
- 14H25:** 1: 11G20 Curves over finite and local fields [See also **14H25**]
- 14H25:** 2: 11G30 Curves of arbitrary genus or genus $\neq 1$ over global fields [See also **14H25**]
- 14H30:** 1: 14E20 Coverings [See also **14H30**]
- 14H30:** 2: 14F35 Homotopy theory; fundamental groups [See also **14H30**]
- 14H40:** 1: 14K30 Picard schemes, higher Jacobians [See also **14H40**, 32G20]
- 14H42:** 1: 14K25 Theta functions [See also **14H42**]
- 14H52:** 1: 11G05 Elliptic curves over global fields [See also **14H52**]
- 14H52:** 2: 11G07 Elliptic curves over local fields [See also 14G20, **14H52**]
- 14H60:** 1: 14F05 Sheaves, derived categories of sheaves and related constructions [See also **14H60**, 14J60, 18F20, 32Lxx, 46M20]
- 14H70:** 1: 37K20 Relations with algebraic geometry, complex analysis, special functions [See also **14H70**]
- 14Hxx:** 1: 32Jxx Compact analytic spaces { For Riemann surfaces, see **14Hxx**, 30Fxx; for algebraic theory, see 14Jxx }
- 14J10:** 1: 32G13 Analytic moduli problems { For algebraic moduli problems, see 14D20, 14D22, 14H10, **14J10** } [See also 14H15, 14J15]
- 14J15:** 1: 32G13 Analytic moduli problems { For algebraic moduli problems, see 14D20, 14D22, 14H10, 14J10 } [See also 14H15, **14J15**]
- 14J17:** 1: 14B05 Singularities [See also 14E15, 14H20, **14J17**, 32Sxx, 58Kxx]
- 14J17:** 2: 32S05 Local singularities [See also **14J17**]
- 14J17:** 3: 32S25 Surface and hypersurface singularities [See also **14J17**]
- 14J20:** 1: 11F41 Automorphic forms on $GL(2)$; Hilbert and Hilbert-Siegel modular groups and their modular and automorphic forms; Hilbert modular surfaces [See also **14J20**]
- 14J30:** 1: 32Q25 Calabi-Yau theory [See also **14J30**]
- 14J33:** 1: 11G42 Arithmetic mirror symmetry [See also **14J33**]
- 14J33:** 2: 53D37 Mirror symmetry, symplectic aspects; homological mirror symmetry; Fukaya category [See also **14J33**]
- 14J60:** 1: 14F05 Sheaves, derived categories of sheaves and related constructions [See also 14H60, **14J60**, 18F20, 32Lxx, 46M20]
- 14Jxx:** 1: 32Jxx Compact analytic spaces { For Riemann surfaces, see 14Hxx, 30Fxx; for algebraic theory, see **14Jxx** }
- 14Jxx:** 2: 57N13 Topology of E^4 , 4-manifolds [See also **14Jxx**, 32Jxx]
- 14K22:** 1: 11G15 Complex multiplication and moduli of abelian varieties [See also **14K22**]
- 14K25:** 1: 14H42 Theta functions; Schottky problem [See also **14K25**, 32G20]
- 14K30:** 1: 32G20 Period matrices, variation of Hodge structure; degenerations [See also 14D05, 14D07, **14K30**]
- 14Kxx:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, **14Kxx**, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 14Kxx:** 2: 11Gxx Arithmetic algebraic geometry (Diophantine geometry) [See also 11Dxx, 14Gxx, **14Kxx**]
- 14Kxx:** 3: 11G10 Abelian varieties of dimension > 1 [See also **14Kxx**]
- 14Kxx:** 4: 14H52 Elliptic curves [See also 11G05, 11G07, **14Kxx**]
- 14L05:** 1: 11G09 Drinfel'd modules; higher-dimensional motives, etc. [See also **14L05**]
- 14L05:** 2: 11S31 Class field theory; p -adic formal groups [See also **14L05**]
- 14L05:** 3: 55N22 Bordism and cobordism theories, formal group laws [See also **14L05**, 19L41, 57R75, 57R77, 57R85, 57R90]
- 14L24:** 1: 13A50 Actions of groups on commutative rings; invariant theory [See also **14L24**]
- 14L24:** 2: 14L30 Group actions on varieties or schemes (quotients) [See also 13A50, **14L24**]
- 14L24:** 3: 15A72 Vector and tensor algebra, theory of invariants [See also 13A50, **14L24**]
- 14L30:** 1: 14R20 Group actions on affine varieties [See also 13A50, **14L30**]
- 14L35:** 1: 51N30 Geometry of classical groups [See also 20Gxx, **14L35**]
- 14Lxx:** 1: 11E57 Classical groups [See also **14Lxx**, 20Gxx]
- 14Lxx:** 2: 17B45 Lie algebras of linear algebraic groups [See also **14Lxx** and 20Gxx]
- 14Lxx:** 3: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see **14Lxx**, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, 22E50, 22E55 }
- 14M05:** 1: 13F15 Rings defined by factorization properties (e.g., atomic, factorial, half-factorial) [See also 13A05, **14M05**]
- 14M05:** 2: 13H10 Special types (Cohen-Macaulay, Gorenstein, Buchsbaum, etc.) [See also **14M05**]
- 14M06:** 1: 13C40 Linkage, complete intersections and determinantal ideals [See also **14M06**, 14M10,

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- 14M12]
- 14M10:** 1: 13C40 Linkage, complete intersections and determinantal ideals [See also 14M06, **14M10**, 14M12]
- 14M12:** 1: 13C40 Linkage, complete intersections and determinantal ideals [See also 14M06, 14M10, 14M12]
- 14M15:** 1: 51M35 Synthetic treatment of fundamental manifolds in projective geometries (Grassmannians, Veronesians and their generalizations) [See also **14M15**]
- 14M15:** 2: 53C30 Homogeneous manifolds [See also **14M15**, 14M17, 32M10, 57T15]
- 14M17:** 1: 32M10 Homogeneous complex manifolds [See also **14M17**, 57T15]
- 14M17:** 2: 32M12 Almost homogeneous manifolds and spaces [See also **14M17**]
- 14M17:** 3: 53C30 Homogeneous manifolds [See also 14M15, **14M17**, 32M10, 57T15]
- 14M20:** 1: 14E08 Rationality questions [See also **14M20**]
- 14M25:** 1: 14Txx Tropical geometry [See also 12K10, **14M25**, 14N10, 52B20]
- 14M25:** 2: 14T05 Tropical geometry [See also 12K10, **14M25**, 14N10, 52B20]
- 14M30:** 1: 32C11 Complex supergeometry [See also 14A22, **14M30**, 58A50]
- 14N10:** 1: 14Txx Tropical geometry [See also 12K10, 14M25, **14N10**, 52B20]
- 14N10:** 2: 14T05 Tropical geometry [See also 12K10, 14M25, **14N10**, 52B20]
- 14N35:** 1: 53D45 Gromov-Witten invariants, quantum cohomology, Frobenius manifolds [See also **14N35**]
- 14Nxx:** 1: 05E15 Combinatorial aspects of groups and algebras [See also **14Nxx**, 22E45, 33C80]
- 14Nxx:** 2: 51N35 Questions of classical algebraic geometry [See also **14Nxx**]
- 14P15:** 1: 32B20 Semi-analytic sets and subanalytic sets [See also **14P15**]
- 14P15:** 2: 32C07 Real-analytic sets, complex Nash functions [See also **14P15**, 14P20]
- 14P20:** 1: 32C07 Real-analytic sets, complex Nash functions [See also 14P15, **14P20**]
- 14P20:** 2: 58A07 Real-analytic and Nash manifolds [See also **14P20**, 32C07]
- 14Pxx:** 1: 13J30 Real algebra [See also 12D15, **14Pxx**]
- 14Pxx:** 2: 26C15 Rational functions [See also **14Pxx**]
- 14Pxx:** 3: 32C05 Real-analytic manifolds, real-analytic spaces [See also **14Pxx**, 58A07]
- 14Qxx:** 1: 13Pxx Computational aspects and applications [See also **14Qxx**, 68W30]
- 14Qxx:** 2: 68W30 Symbolic computation and algebraic computation [See also 11Yxx, 12Y05, 13Pxx, 14Qxx, 16Z05, 17-08, 33F10]
- 15-XX:** 1: 16S50 Endomorphism rings; matrix rings [See also **15-XX**]
- 15A12:** 1: 65F35 Matrix norms, conditioning, scaling [See also **15A12**, 15A60]
- 15A30:** 1: 16Kxx Division rings and semisimple Artin rings [See also 12E15, **15A30**]
- 15A30:** 2: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see **15A30**, 22E45, 22E46, 22E47, 22E50, 22E55 }
- 15A30:** 3: 20Hxx Other groups of matrices [See also **15A30**]
- 15A60:** 1: 65F35 Matrix norms, conditioning, scaling [See also 15A12, **15A60**]
- 15A63:** 1: 11Exx Forms and linear algebraic groups [See also 19Gxx] { For quadratic forms in linear algebra, see **15A63** }
- 15A63:** 2: 11E88 Quadratic spaces; Clifford algebras [See also **15A63**, 15A66]
- 15A66:** 1: 11E88 Quadratic spaces; Clifford algebras [See also 15A63, **15A66**]
- 15A66:** 2: 16W55 “Super” (or “skew”) structure [See also 17A70, 17Bxx, 17C70] { For exterior algebras, see 15A75; for Clifford algebras, see 11E88, **15A66** }
- 15A75:** 1: 16W55 “Super” (or “skew”) structure [See also 17A70, 17Bxx, 17C70] { For exterior algebras, see **15A75**; for Clifford algebras, see 11E88, 15A66 }
- 15B36:** 1: 11C20 Matrices, determinants [See also **15B36**]
- 15B52:** 1: 37Hxx Random dynamical systems [See also **15B52**, 34D08, 34F05, 47B80, 70L05, 82C05, 93Exx]
- 15B52:** 2: 60B20 Random matrices (probabilistic aspects; for algebraic aspects see **15B52**)
- 16-XX:** 1: 46H25 Normed modules and Banach modules, topological modules (if not placed in 13-XX or 16-XX)
- 16D40:** 1: 18G05 Projectives and injectives [See also 13C10, 13C11, **16D40**, 16D50]
- 16D50:** 1: 16L60 Quasi-Frobenius rings [See also **16D50**]
- 16D50:** 2: 18G05 Projectives and injectives [See also 13C10, 13C11, 16D40, **16D50**]
- 16D60:** 1: 16N60 Prime and semiprime rings [See also **16D60**, 16U10]
- 16D90:** 1: 16B50 Category-theoretic methods and results (except as in **16D90**) [See also 18-XX]
- 16E05:** 1: 18G10 Resolutions; derived functors [See also 13D02, **16E05**, 18E25]
- 16E10:** 1: 18G20 Homological dimension [See also 13D05, **16E10**]
- 16E20:** 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx, **16E20**, 19-XX, 46L80, 57R65, 57R67]

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16E20:	2:	18F30	Grothendieck groups [See also 13D15, 16E20 , 19Axx]
16E20:	3:	19-XX	K -theory [See also 16E20 , 18F25]
16E20:	4:	19D50	Computations of higher K -theory of rings [See also 13D15, 16E20]
16E50:	1:	06E20	Ring-theoretic properties [See also 16E50 , 16G30]
16Exx:	1:	13Dxx	Homological methods { For noncommutative rings, see 16Exx ; for general categories, see 18Gxx }
16Exx:	2:	18-XX	Category theory; homological algebra { For commutative rings see 13Dxx, for associative rings 16Exx , for groups 20Jxx, for topological groups and related structures 57Txx; see also 55Nxx and 55Uxx for algebraic topology }
16Exx:	3:	18Gxx	Homological algebra [See also 13Dxx, 16Exx , 20Jxx, 55Nxx, 55Uxx, 57Txx]
16G30:	1:	06E20	Ring-theoretic properties [See also 16E50, 16G30]
16G50:	1:	16D80	Other classes of modules and ideals [See also 16G50]
16Gxx:	1:	16D70	Structure and classification (except as in 16Gxx), direct sum decomposition, cancellation
16Gxx:	2:	16D90	Module categories [See also 16Gxx , 16S90]; module theory in a category-theoretic context; Morita equivalence and duality
16H05:	1:	11S25	Galois cohomology [See also 12Gxx, 16H05]
16Hxx:	1:	11R54	Other algebras and orders, and their zeta and L -functions [See also 11S45, 16Hxx , 16Kxx]
16Hxx:	2:	11S45	Algebras and orders, and their zeta functions [See also 11R52, 11R54, 16Hxx , 16Kxx]
16Hxx:	3:	12G05	Galois cohomology [See also 14F22, 16Hxx , 16K50]
16Hxx:	4:	16G30	Representations of orders, lattices, algebras over commutative rings [See also 16Hxx]
16K20:	1:	16P10	Finite rings and finite-dimensional algebras { For semisimple, see 16K20 ; for commutative, see 11Txx, 13Mxx }
16K50:	1:	12G05	Galois cohomology [See also 14F22, 16Hxx, 16K50]
16K50:	2:	14F22	Brauer groups of schemes [See also 12G05, 16K50]
16Kxx:	1:	11R54	Other algebras and orders, and their zeta and L -functions [See also 11S45, 16Hxx, 16Kxx]
16Kxx:	2:	11S45	Algebras and orders, and their zeta functions [See also 11R52, 11R54, 16Hxx, 16Kxx]
16Kxx:	3:	12E15	Skew fields, division rings [See also 11R52, 11R54, 11S45, 16Kxx]
16Kxx:	4:	16D30	Infinite-dimensional simple rings (except as in 16Kxx)
16L60:	1:	16D50	Injective modules, self-injective rings [See also 16L60]
16Nxx:	1:	16S90	Torsion theories; radicals on module categories [See also 13D30, 18E40] { For radicals of rings, see 16Nxx }
16S30:	1:	17B35	Universal enveloping (super)algebras [See also 16S30]
16S32:	1:	13N10	Rings of differential operators and their modules [See also 16S32 , 32C38]
16S32:	2:	32C38	Sheaves of differential operators and their modules, D -modules [See also 14F10, 16S32 , 35A27, 58J15]
16S34:	1:	20C05	Group rings of finite groups and their modules [See also 16S34]
16S34:	2:	20C07	Group rings of infinite groups and their modules [See also 16S34]
16S35:	1:	16K20	Finite-dimensional { For crossed products, see 16S35 }
16S36:	1:	20M25	Semigroup rings, multiplicative semigroups of rings [See also 16S36 , 16Y60]
16S38:	1:	14A22	Noncommutative algebraic geometry [See also 16S38]
16S40:	1:	16T05	Hopf algebras and their applications [See also 16S40 , 57T05]
16S50:	1:	15A30	Algebraic systems of matrices [See also 16S50 , 20Gxx, 20Hxx]
16S80:	1:	32G05	Deformations of complex structures [See also 13D10, 16S80 , 58H10, 58H15]
16S85:	1:	13B30	Rings of fractions and localization [See also 16S85]
16S90:	1:	16D90	Module categories [See also 16Gxx, 16S90]; module theory in a category-theoretic context; Morita equivalence and duality
16S90:	2:	16N80	General radicals and rings { For radicals in module categories, see 16S90 }
16S90:	3:	18E40	Torsion theories, radicals [See also 13D30, 16S90]
16T05:	1:	16S40	Smash products of general Hopf actions [See also 16T05]
16T05:	2:	57T05	Hopf algebras [See also 16T05]
16T20:	1:	17B37	Quantum groups (quantized enveloping algebras) and related deformations [See also 16T20 , 20G42, 81R50, 82B23]
16T20:	2:	20G42	Quantum groups (quantized function algebras) and their representations [See also 16T20 , 17B37, 81R50]
16T20:	3:	81R50	Quantum groups and related algebraic methods [See also 16T20 , 17B37]
16U10:	1:	16N60	Prime and semiprime rings [See also 16D60, 16U10]
16U20:	1:	16P50	Localization and Noetherian rings [See also 16U20]
16U20:	2:	16P60	Chain conditions on annihilators and summands: Goldie-type conditions [See also

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- 16U20**, Krull dimension
- 16W10**: 1: 17B60 Lie (super)algebras associated with other structures (associative, Jordan, etc.) [See also **16W10**, 17C40, 17C50]
- 16W10**: 2: 17C50 Jordan structures associated with other structures [See also **16W10**]
- 16W10**: 3: 46Kxx Topological (rings and) algebras with an involution [See also **16W10**]
- 16W50**: 1: 13A02 Graded rings [See also **16W50**]
- 16W60**: 1: 13Jxx Topological rings and modules [See also **16W60**, 16W80]
- 16W80**: 1: 06F25 Ordered rings, algebras, modules { For ordered fields, see 12J15; see also 13J25, **16W80** }
- 16W80**: 2: 13Jxx Topological rings and modules [See also 16W60, **16W80**]
- 16W80**: 3: 22Axx Topological and differentiable algebraic systems { For topological rings and fields, see 12Jxx, 13Jxx, **16W80** }
- 16W80**: 4: 54H13 Topological fields, rings, etc. [See also 12Jxx] { For algebraic aspects, see 13Jxx, **16W80** }
- 16Y30**: 1: 12K05 Near-fields [See also **16Y30**]
- 16Y30**: 2: 51J20 Representation by near-fields and near-algebras [See also 12K05, **16Y30**]
- 16Y60**: 1: 12K10 Semifields [See also **16Y60**]
- 16Y60**: 2: 20M25 Semigroup rings, multiplicative semigroups of rings [See also 16S36, **16Y60**]
- 16Z05**: 1: 68W30 Symbolic computation and algebraic computation [See also 11Yxx, 12Y05, 13Pxx, 14Qxx, **16Z05**, 17-08, 33F10]
- 17-08**: 1: 68W30 Symbolic computation and algebraic computation [See also 11Yxx, 12Y05, 13Pxx, 14Qxx, 16Z05, **17-08**, 33F10]
- 17-XX**: 1: 16Yxx Generalizations { For nonassociative rings, see **17-XX** }
- 17A70**: 1: 16W55 “Super” (or “skew”) structure [See also **17A70**, 17Bxx, 17C70] { For exterior algebras, see 15A75; for Clifford algebras, see 11E88, 15A66 }
- 17B10**: 1: 22E47 Representations of Lie and real algebraic groups: algebraic methods (Verma modules, etc.) [See also **17B10**]
- 17B35**: 1: 16S30 Universal enveloping algebras of Lie algebras [See mainly **17B35**]
- 17B37**: 1: 16T20 Ring-theoretic aspects of quantum groups [See also **17B37**, 20G42, 81R50]
- 17B37**: 2: 20G42 Quantum groups (quantized function algebras) and their representations [See also 16T20, **17B37**, 81R50]
- 17B37**: 3: 81R50 Quantum groups and related algebraic methods [See also 16T20, **17B37**]
- 17B45**: 1: 14Lxx Algebraic groups { For linear algebraic groups, see 20Gxx; for Lie algebras, see **17B45** }
- 17B45**: 2: 14L17 Affine algebraic groups, hyperalgebra constructions [See also **17B45**, 18D35]
- 17B60**: 1: 16W10 Rings with involution; Lie, Jordan and other nonassociative structures [See also **17B60**, 17C50, 46Kxx]
- 17B65**: 1: 22E65 Infinite-dimensional Lie groups and their Lie algebras: general properties [See also **17B65**, 58B25, 58H05]
- 17B65**: 2: 58D07 Groups and semigroups of nonlinear operators [See also **17B65**, 47H20]
- 17B65**: 3: 81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, W -algebras and other current algebras and their representations [See also **17B65**, 17B67, 22E65, 22E67, 22E70]
- 17B67**: 1: 81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, W -algebras and other current algebras and their representations [See also 17B65, **17B67**, 22E65, 22E67, 22E70]
- 17Bxx**: 1: 16W55 “Super” (or “skew”) structure [See also 17A70, **17Bxx**, 17C70] { For exterior algebras, see 15A75; for Clifford algebras, see 11E88, 15A66 }
- 17Bxx**: 2: 22E60 Lie algebras of Lie groups { For the algebraic theory of Lie algebras, see **17Bxx** }
- 17Bxx**: 3: 81R12 Relations with integrable systems [See also **17Bxx**, 37J35]
- 17C40**: 1: 17B60 Lie (super)algebras associated with other structures (associative, Jordan, etc.) [See also 16W10, **17C40**, 17C50]
- 17C50**: 1: 16W10 Rings with involution; Lie, Jordan and other nonassociative structures [See also 17B60, **17C50**, 46Kxx]
- 17C50**: 2: 17B60 Lie (super)algebras associated with other structures (associative, Jordan, etc.) [See also 16W10, 17C40, **17C50**]
- 17C70**: 1: 16W55 “Super” (or “skew”) structure [See also 17A70, 17Bxx, **17C70**] { For exterior algebras, see 15A75; for Clifford algebras, see 11E88, 15A66 }
- 17D92**: 1: 92D10 Genetics { For genetic algebras, see **17D92** }
- 18-XX**: 1: 16B50 Category-theoretic methods and results (except as in 16D90) [See also **18-XX**]
- 18-XX**: 2: 46Mxx Methods of category theory in functional analysis [See also **18-XX**]
- 18A30**: 1: 08B25 Products, amalgamated products, and other kinds of limits and colimits [See also **18A30**]
- 18A40**: 1: 08C20 Natural dualities for classes of algebras [See also 06E15, **18A40**, 22A30]

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18B15:	1:	18E20	Embedding theorems [See also 18B15]
18B20:	1:	68Q70	Algebraic theory of languages and automata [See also 18B20 , 20M35]
18B25:	1:	03G30	Categorical logic, topoi [See also 18B25 , 18C05, 18C10]
18B30:	1:	54B30	Categorical methods [See also 18B30]
18B35:	1:	06-XX	Order, lattices, ordered algebraic structures [See also 18B35]
18B35:	2:	06B35	Continuous lattices and posets, applications [See also 06B30, 06D10, 06F30, 18B35 , 22A26, 68Q55]
18C05:	1:	03C05	Equational classes, universal algebra [See also 08Axx, 08Bxx, 18C05]
18C05:	2:	03G30	Categorical logic, topoi [See also 18B25, 18C05 , 18C10]
18C05:	3:	08C05	Categories of algebras [See also 18C05]
18C10:	1:	03G30	Categorical logic, topoi [See also 18B25, 18C05, 18C10]
18C50:	1:	68Q55	Semantics [See also 03B70, 06B35, 18C50]
18C50:	2:	68Q65	Abstract data types; algebraic specification [See also 18C50]
18D10:	1:	19D23	Symmetric monoidal categories [See also 18D10]
18D35:	1:	14L17	Affine algebraic groups, hyperalgebra constructions [See also 17B45, 18D35]
18D50:	1:	55P48	Loop space machines, operads [See also 18D50]
18E20:	1:	18B15	Embedding theorems, universal categories [See also 18E20]
18E25:	1:	18G10	Resolutions; derived functors [See also 13D02, 16E05, 18E25]
18E30:	1:	18G35	Chain complexes [See also 18E30 , 55U15]
18E40:	1:	13D30	Torsion theory [See also 13C12, 18E40]
18E40:	2:	16S90	Torsion theories; radicals on module categories [See also 13D30, 18E40] { For radicals of rings, see 16Nxx }
18F15:	1:	55Rxx	Fiber spaces and bundles [See also 18F15 , 32Lxx, 46M20, 57R20, 57R22, 57R25]
18F15:	2:	57Pxx	Generalized manifolds [See also 18F15]
18F20:	1:	14F05	Sheaves, derived categories of sheaves and related constructions [See also 14H60, 14J60, 18F20 , 32Lxx, 46M20]
18F20:	2:	32C35	Analytic sheaves and cohomology groups [See also 14Fxx, 18F20 , 55N30]
18F20:	3:	32L10	Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also 14F05, 18F20 , 55N30]
18F20:	4:	54B40	Presheaves and sheaves [See also 18F20]
18F20:	5:	55N30	Sheaf cohomology [See also 18F20 , 32C35, 32L10]
18F25:	1:	19-XX	K -theory [See also 16E20, 18F25]
18F25:	2:	46L80	K -theory and operator algebras (including cyclic theory) [See also 18F25 , 19Kxx, 46M20, 55Rxx, 58J22]
18F25:	3:	55N15	K -theory [See also 19Lxx] { For algebraic K -theory, see 18F25 , 19-XX }
18F25:	4:	55R50	Stable classes of vector space bundles, K -theory [See also 19Lxx] { For algebraic K -theory, see 18F25 , 19-XX }
18F30:	1:	13D15	Grothendieck groups, K -theory [See also 14C35, 18F30 , 19Axx, 19D50]
18F30:	2:	16E20	Grothendieck groups, K -theory, etc. [See also 18F30 , 19Axx, 19D50]
18F30:	3:	19Axx	Grothendieck groups and K_0 [See also 13D15, 18F30]
18Fxx:	1:	46M20	Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx , 19Kxx, 32Cxx, 32Lxx, 46L80, 46M15, 46M18, 55Rxx]
18G40:	1:	55Txx	Spectral sequences [See also 18G40 , 55R20]
18G55:	1:	57T30	Bar and cobar constructions [See also 18G55 , 55Uxx]
18G60:	1:	19D55	K -theory and homology; cyclic homology and cohomology [See also 18G60]
18Gxx:	1:	13Dxx	Homological methods { For noncommutative rings, see 16Exx; for general categories, see 18Gxx }
18Gxx:	2:	16Exx	Homological methods { For commutative rings, see 13Dxx; for general categories, see 18Gxx }
18Gxx:	3:	18C15	Triples (= standard construction, monad or triad), algebras for a triple, homology and derived functors for triples [See also 18Gxx]
18Gxx:	4:	55Uxx	Applied homological algebra and category theory [See also 18Gxx]
19-XX:	1:	18F25	Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX , 46L80, 57R65, 57R67]
19-XX:	2:	55N15	K -theory [See also 19Lxx] { For algebraic K -theory, see 18F25, 19-XX }
19-XX:	3:	55R50	Stable classes of vector space bundles, K -theory [See also 19Lxx] { For algebraic K -theory, see 18F25, 19-XX }
19A13:	1:	13C10	Projective and free modules and ideals [See also 19A13]
19A13:	2:	16D40	Free, projective, and flat modules and ideals [See also 19A13]
19A22:	1:	20Cxx	Representation theory of groups [See also 19A22 (for representation rings and Burnside rings)]

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19A31:	1:	11R34	Galois cohomology [See also 12Gxx, 19A31]
19Axx:	1:	13D15	Grothendieck groups, K -theory [See also 14C35, 18F30, 19Axx , 19D50]
19Axx:	2:	16E20	Grothendieck groups, K -theory, etc. [See also 18F30, 19Axx , 19D50]
19Axx:	3:	18F30	Grothendieck groups [See also 13D15, 16E20, 19Axx]
19B10:	1:	15A15	Determinants, permanents, other special matrix functions [See also 19B10 , 19B14]
19B14:	1:	15A15	Determinants, permanents, other special matrix functions [See also 19B10, 19B14]
19B28:	1:	57Q10	Simple homotopy type, Whitehead torsion, Reidemeister-Franz torsion, etc. [See also 19B28]
19B37:	1:	20H05	Unimodular groups, congruence subgroups [See also 11F06, 19B37 , 22E40, 51F20]
19D23:	1:	18D10	Monoidal categories (= multiplicative categories), symmetric monoidal categories, braided categories [See also 19D23]
19D50:	1:	13D15	Grothendieck groups, K -theory [See also 14C35, 18F30, 19Axx, 19D50]
19D50:	2:	16E20	Grothendieck groups, K -theory, etc. [See also 18F30, 19Axx, 19D50]
19D55:	1:	18G60	Other (co)homology theories [See also 19D55 , 46L80, 58J20, 58J22]
19D55:	2:	55S25	K -theory operations and generalized cohomology operations [See also 19D55 , 19Lxx]
19E20:	1:	14C40	Riemann-Roch theorems [See also 19E20 , 19L10]
19Exx:	1:	14C35	Applications of methods of algebraic K -theory [See also 19Exx]
19F05:	1:	11G45	Geometric class field theory [See also 11R37, 14C35, 19F05]
19F27:	1:	11R42	Zeta functions and L -functions of number fields [See also 11M41, 19F27]
19F27:	2:	11S40	Zeta functions and L -functions [See also 11M41, 19F27]
19Fxx:	1:	11R70	K -theory of global fields [See also 19Fxx]
19Fxx:	2:	11S70	K -theory of local fields [See also 19Fxx]
19G12:	1:	11E81	Algebraic theory of quadratic forms; Witt groups and rings [See also 19G12 , 19G24]
19G24:	1:	11E81	Algebraic theory of quadratic forms; Witt groups and rings [See also 19G12, 19G24]
19Gxx:	1:	11Exx	Forms and linear algebraic groups [See also 19Gxx] { For quadratic forms in linear algebra, see 15A63 }
19J25:	1:	57R67	Surgery obstructions, Wall groups [See also 19J25]
19K33:	1:	46M15	Categories, functors { For K -theory, EXT, etc., see 19K33 , 46L80, 46M18, 46M20 }
19K56:	1:	58J20	Index theory and related fixed point theorems [See also 19K56 , 46L80]
19K56:	2:	58J22	Exotic index theories [See also 19K56 , 46L05, 46L10, 46L80, 46M20]
19Kxx:	1:	46L80	K -theory and operator algebras (including cyclic theory) [See also 18F25, 19Kxx , 46M20, 55Rxx, 58J22]
19Kxx:	2:	46M20	Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx , 32Cxx, 32Lxx, 46L80, 46M15, 46M18, 55Rxx]
19L10:	1:	14C40	Riemann-Roch theorems [See also 19E20, 19L10]
19L20:	1:	55Q50	J -morphism [See also 19L20]
19L41:	1:	55N22	Bordism and cobordism theories, formal group laws [See also 14L05, 19L41 , 57R75, 57R77, 57R85, 57R90]
19L47:	1:	55N91	Equivariant homology and cohomology [See also 19L47]
19L47:	2:	55P91	Equivariant homotopy theory [See also 19L47]
19L47:	3:	55Q91	Equivariant homotopy groups [See also 19L47]
19L47:	4:	55R91	Equivariant fiber spaces and bundles [See also 19L47]
19L47:	5:	55S91	Equivariant operations and obstructions [See also 19L47]
19Lxx:	1:	55S25	K -theory operations and generalized cohomology operations [See also 19D55, 19Lxx]
20Axx:	1:	18B40	Groupoids, semigroupoids, semigroups, groups (viewed as categories) [See also 20Axx , 20L05, 20Mxx]
20C05:	1:	16S34	Group rings [See also 20C05 , 20C07], Laurent polynomial rings
20C07:	1:	16S34	Group rings [See also 20C05, 20C07], Laurent polynomial rings
20C10:	1:	11R33	Integral representations related to algebraic numbers; Galois module structure of rings of integers [See also 20C10]
20C30:	1:	05E10	Combinatorial aspects of representation theory [See also 20C30]
20C35:	1:	81R05	Finite-dimensional groups and algebras motivated by physics and their representations [See also 20C35 , 22E70]
20D05:	1:	20E32	Simple groups [See also 20D05]
20D10:	1:	20F16	Solvable groups, supersolvable groups [See also 20D10]
20D10:	2:	20F17	Formations of groups, Fitting classes [See also 20D10]
20D15:	1:	20F18	Nilpotent groups [See also 20D15]
20D45:	1:	20E36	Automorphisms of infinite groups [For automorphisms of finite groups, see 20D45]
20E08:	1:	20F65	Geometric group theory [See also 05C25, 20E08 , 57Mxx]
20E36:	1:	20F28	Automorphism groups of groups [See also 20E36]
20F10:	1:	03B25	Decidability of theories and sets of sentences [See also 11U05, 12L05, 20F10]

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20F10:	2:	03D40	Word problems, etc. [See also 06B25, 08A50, 20F10 , 68R15]
20F10:	3:	06B25	Free lattices, projective lattices, word problems [See also 03D40, 08A50, 20F10]
20F10:	4:	08A50	Word problems [See also 03D40, 06B25, 20F10 , 68R15]
20F10:	5:	20A10	Metamathematical considerations { For word problems, see 20F10 }
20F17:	1:	20D10	Solvable groups, theory of formations, Schunck classes, Fitting classes, π -length, ranks
[See also 20F17]			
20F22:	1:	20E15	Chains and lattices of subgroups, subnormal subgroups [See also 20F22]
20F34:	1:	57Sxx	Topological transformation groups [See also 20F34 , 22-XX, 37-XX, 54H15, 58D05]
20F55:	1:	51F15	Reflection groups, reflection geometries [See also 20H10, 20H15; for Coxeter groups, see 20F55]
20F60:	1:	06F15	Ordered groups [See also 20F60]
20F65:	1:	05C25	Graphs and abstract algebra (groups, rings, fields, etc.) [See also 20F65]
20F65:	2:	20E08	Groups acting on trees [See also 20F65]
20G05:	1:	22E45	Representations of Lie and linear algebraic groups over real fields: analytic methods {
For the purely algebraic theory, see 20G05 }			
20G05:	2:	22E50	Representations of Lie and linear algebraic groups over local fields [See also 20G05]
20G05:	3:	22E55	Representations of Lie and linear algebraic groups over global fields and adèle rings [See also 20G05]
20G10:	1:	11E72	Galois cohomology of linear algebraic groups [See also 20G10]
20G40:	1:	20B25	Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40 , 20H30, 51-XX]
20G42:	1:	16T20	Ring-theoretic aspects of quantum groups [See also 17B37, 20G42 , 81R50]
20G42:	2:	17B37	Quantum groups (quantized enveloping algebras) and related deformations [See also 16T20, 20G42 , 81R50, 82B23]
20Gxx:	1:	11E57	Classical groups [See also 14Lxx, 20Gxx]
20Gxx:	2:	14Lxx	Algebraic groups { For linear algebraic groups, see 20Gxx ; for Lie algebras, see 17B45 }
20Gxx:	3:	14L35	Classical groups (geometric aspects) [See also 20Gxx , 51N30]
20Gxx:	4:	15A30	Algebraic systems of matrices [See also 16S50, 20Gxx , 20Hxx]
20Gxx:	5:	17B45	Lie algebras of linear algebraic groups [See also 14Lxx and 20Gxx]
20Gxx:	6:	20D06	Simple groups: alternating groups and groups of Lie type [See also 20Gxx]
20Gxx:	7:	51N30	Geometry of classical groups [See also 20Gxx , 14L35]
20H05:	1:	11F06	Structure of modular groups and generalizations; arithmetic groups [See also 20H05 , 20H10, 22E40]
20H05:	2:	19B37	Congruence subgroup problems [See also 20H05]
20H05:	3:	51F20	Congruence and orthogonality [See also 20H05]
20H05:	4:	51F25	Orthogonal and unitary groups [See also 20H05]
20H10:	1:	11F06	Structure of modular groups and generalizations; arithmetic groups [See also 20H05, 20H10 , 22E40]
20H10:	2:	30F35	Fuchsian groups and automorphic functions [See also 11Fxx, 20H10 , 22E40, 32Gxx, 32Nxx]
20H10:	3:	30F40	Kleinian groups [See also 20H10]
20H10:	4:	32Nxx	Automorphic functions [See also 11Fxx, 20H10 , 22E40, 30F35]
20H10:	5:	51F15	Reflection groups, reflection geometries [See also 20H10 , 20H15; for Coxeter groups, see 20F55]
20H15:	1:	51F15	Reflection groups, reflection geometries [See also 20H10, 20H15 ; for Coxeter groups, see 20F55]
20H15:	2:	82D25	Crystals { For crystallographic group theory, see 20H15 }
20H30:	1:	20B25	Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40, 20H30 , 51-XX]
20Hxx:	1:	15A30	Algebraic systems of matrices [See also 16S50, 20Gxx, 20Hxx]
20Hxx:	2:	22E40	Discrete subgroups of Lie groups [See also 20Hxx , 32Nxx]
20J05:	1:	20E22	Extensions, wreath products, and other compositions [See also 20J05]
20Jxx:	1:	18-XX	Category theory; homological algebra { For commutative rings see 13Dxx, for associative rings 16Exx, for groups 20Jxx , for topological groups and related structures 57Txx; see also 55Nxx and 55Uxx for algebraic topology }
20Jxx:	2:	18Gxx	Homological algebra [See also 13Dxx, 16Exx, 20Jxx , 55Nxx, 55Uxx, 57Txx]
20L05:	1:	18A10	Graphs, diagram schemes, precategories [See especially 20L05]
20L05:	2:	18B40	Groupoids, semigroupoids, semigroups, groups (viewed as categories) [See also 20Axx, 20L05 , 20Mxx]
20M10:	1:	06A12	Semilattices [See also 20M10 ; for topological semilattices see 22A26]
20M20:	1:	47D03	Groups and semigroups of linear operators { For nonlinear operators, see 47H20; see also

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20M20 }			
20M20:	2:	54H15	Transformation groups and semigroups [See also 20M20 , 22-XX, 57Sxx]
20M25:	1:	16S36	Ordinary and skew polynomial rings and semigroup rings [See also 20M25]
20M35:	1:	68Q70	Algebraic theory of languages and automata [See also 18B20, 20M35]
20M35:	2:	94A45	Prefix, length-variable, comma-free codes [See also 20M35 , 68Q45]
20Mxx:	1:	06F05	Ordered semigroups and monoids [See also 20Mxx]
20Mxx:	2:	18B40	Groupoids, semigroupoids, semigroups, groups (viewed as categories) [See also 20Axx, 20L05, 20Mxx]
20N02:	1:	20Lxx	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02 ; for topological groupoids, see 22A22, 58H05 }
20N02:	2:	20L05	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02 ; for topological groupoids, see 22A22, 58H05 }
20N05:	1:	51A25	Algebraization [See also 12Kxx, 20N05]
20N05:	2:	53A60	Geometry of webs [See also 14C21, 20N05]
22-XX:	1:	54H10	Topological representations of algebraic systems [See also 22-XX]
22-XX:	2:	54H15	Transformation groups and semigroups [See also 20M20, 22-XX , 57Sxx]
22-XX:	3:	57Sxx	Topological transformation groups [See also 20F34, 22-XX , 37-XX, 54H15, 58D05]
22A05:	1:	20K45	Topological methods [See also 22A05 , 22B05]
22A05:	2:	54H11	Topological groups [See also 22A05]
22A10:	1:	43A65	Representations of groups, semigroups, etc. [See also 22A10 , 22A20, 22Dxx, 22E45]
22A20:	1:	43A65	Representations of groups, semigroups, etc. [See also 22A10, 22A20 , 22Dxx, 22E45]
22A22:	1:	20Lxx	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02; for topological groupoids, see 22A22 , 58H05 }
22A22:	2:	20L05	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02; for topological groupoids, see 22A22 , 58H05 }
22A22:	3:	58H05	Pseudogroups and differentiable groupoids [See also 22A22 , 22E65]
22A26:	1:	06A12	Semilattices [See also 20M10; for topological semilattices see 22A26]
22A26:	2:	06B30	Topological lattices, order topologies [See also 06F30, 22A26 , 54F05, 54H12]
22A26:	3:	06B35	Continuous lattices and posets, applications [See also 06B30, 06D10, 06F30, 18B35, 22A26 , 68Q55]
22A26:	4:	06F30	Topological lattices, order topologies [See also 06B30, 22A26 , 54F05, 54H12]
22A30:	1:	08C20	Natural dualities for classes of algebras [See also 06E15, 18A40, 22A30]
22Axx:	1:	28C10	Set functions and measures on topological groups or semigroups, Haar measures, invariant measures [See also 22Axx , 43A05]
22B05:	1:	20K45	Topological methods [See also 22A05, 22B05]
22B05:	2:	43A70	Analysis on specific locally compact and other abelian groups [See also 11R56, 22B05]
22D25:	1:	46Lxx	Selfadjoint operator algebras (C^* -algebras, von Neumann (W^* -) algebras, etc.) [See also 22D25 , 47Lxx]
22D40:	1:	22F10	Measurable group actions [See also 22D40 , 28Dxx, 37Axx]
22D40:	2:	28Dxx	Measure-theoretic ergodic theory [See also 11K50, 11K55, 22D40 , 37Axx, 47A35, 54H20, 60Fxx, 60G10]
22Dxx:	1:	43A65	Representations of groups, semigroups, etc. [See also 22A10, 22A20, 22Dxx , 22E45]
22E10:	1:	32M05	Complex Lie groups, automorphism groups acting on complex spaces [See also 22E10]
22E10:	2:	32M15	Hermitian symmetric spaces, bounded symmetric domains, Jordan algebras [See also 22E10 , 22E40, 53C35, 57T15]
22E40:	1:	11F06	Structure of modular groups and generalizations; arithmetic groups [See also 20H05, 20H10, 22E40]
22E40:	2:	20F55	Reflection and Coxeter groups [See also 22E40 , 51F15]
22E40:	3:	20H05	Unimodular groups, congruence subgroups [See also 11F06, 19B37, 22E40 , 51F20]
22E40:	4:	20H10	Fuchsian groups and their generalizations [See also 11F06, 22E40 , 30F35, 32Nxx]
22E40:	5:	22F30	Homogeneous spaces { For general actions on manifolds or preserving geometrical structures, see 57M60, 57Sxx; for discrete subgroups of Lie groups, see especially 22E40 }
22E40:	6:	30F35	Fuchsian groups and automorphic functions [See also 11Fxx, 20H10, 22E40 , 32Gxx, 32Nxx]
22E40:	7:	32M15	Hermitian symmetric spaces, bounded symmetric domains, Jordan algebras [See also 22E10, 22E40 , 53C35, 57T15]
22E40:	8:	32Nxx	Automorphic functions [See also 11Fxx, 20H10, 22E40 , 30F35]
22E45:	1:	05E15	Combinatorial aspects of groups and algebras [See also 14Nxx, 22E45 , 33C80]
22E45:	2:	20Gxx	Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45 , 22E46, 22E47, 22E50, 22E55 }

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- 22E45:** 3: 43A65 Representations of groups, semigroups, etc. [See also 22A10, 22A20, 22Dxx, **22E45**]
- 22E45:** 4: 43A90 Spherical functions [See also **22E45**, 22E46, 33C55]
- 22E45:** 5: 81R30 Coherent states [See also **22E45**]; squeezed states [See also 81V80]
- 22E46:** 1: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, **22E46**, 22E47, 22E50, 22E55 }
- 22E46:** 2: 43A90 Spherical functions [See also 22E45, **22E46**, 33C55]
- 22E47:** 1: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, **22E47**, 22E50, 22E55 }
- 22E50:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, 14Kxx, **22E50**, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 22E50:** 2: 11F33 Congruences for modular and p -adic modular forms [See also 14G20, **22E50**]
- 22E50:** 3: 11F85 p -adic theory, local fields [See also 14G20, **22E50**]
- 22E50:** 4: 11S37 Langlands-Weil conjectures, nonabelian class field theory [See also 11Fxx, **22E50**]
- 22E50:** 5: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, **22E50**, 22E55 }
- 22E55:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, 14Kxx, 22E50, **22E55**, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 22E55:** 2: 11R39 Langlands-Weil conjectures, nonabelian class field theory [See also 11Fxx, **22E55**]
- 22E55:** 3: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, 22E50, **22E55** }
- 22E57:** 1: 14D24 Geometric Langlands program: algebro-geometric aspects [See also **22E57**]
- 22E65:** 1: 17B65 Infinite-dimensional Lie (super)algebras [See also **22E65**]
- 22E65:** 2: 58B25 Group structures and generalizations on infinite-dimensional manifolds [See also **22E65**, 58D05]
- 22E65:** 3: 58D05 Groups of diffeomorphisms and homeomorphisms as manifolds [See also **22E65**, 57S05]
- 22E65:** 4: 58H05 Pseudogroups and differentiable groupoids [See also 22A22, **22E65**]
- 22E65:** 5: 81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, W -algebras and other current algebras and their representations [See also 17B65, 17B67, **22E65**, 22E67, 22E70]
- 22E67:** 1: 81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, W -algebras and other current algebras and their representations [See also 17B65, 17B67, 22E65, **22E67**, 22E70]
- 22E70:** 1: 81R05 Finite-dimensional groups and algebras motivated by physics and their representations [See also 20C35, **22E70**]
- 22E70:** 2: 81R10 Infinite-dimensional groups and algebras motivated by physics, including Virasoro, Kac-Moody, W -algebras and other current algebras and their representations [See also 17B65, 17B67, 22E65, 22E67, **22E70**]
- 22Exx:** 1: 17Bxx Lie algebras and Lie superalgebras { For Lie groups, see **22Exx** }
- 22Exx:** 2: 20Gxx Linear algebraic groups and related topics { For arithmetic theory, see 11E57, 11H56; for geometric theory, see 14Lxx, **22Exx**; for other methods in representation theory, see 15A30, 22E45, 22E46, 22E47, 22E50, 22E55 }
- 22Exx:** 3: 33-XX Special functions (33-XX deals with the properties of functions as functions) { For orthogonal functions, see 42Cxx; for aspects of combinatorics see 05Axx; for number-theoretic aspects see 11-XX; for representation theory see **22Exx** }
- 22Exx:** 4: 43-XX Abstract harmonic analysis { For other analysis on topological and Lie groups, see **22Exx** }
- 22Exx:** 5: 43A80 Analysis on other specific Lie groups [See also **22Exx**]
- 22Fxx:** 1: 37A15 General groups of measure-preserving transformations [See mainly **22Fxx**]
- 22Fxx:** 2: 37A17 Homogeneous flows [See also **22Fxx**]
- 22Fxx:** 3: 37C85 Dynamics of group actions other than \mathbf{Z} and \mathbf{R} , and foliations [See mainly **22Fxx**, and also 57R30, 57Sxx]
- 26-XX:** 1: 54C30 Real-valued functions [See also **26-XX**]
- 26A03:** 1: 54F50 Spaces of dimension ≤ 1 ; curves, dendrites [See also **26A03**]
- 26A18:** 1: 37-XX Dynamical systems and ergodic theory [See also **26A18**, 28Dxx, 34Cxx, 34Dxx, 35Bxx, 46Lxx, 58Jxx, 70-XX]
- 26A18:** 2: 39B12 Iteration theory, iterative and composite equations [See also **26A18**, 30D05, 37-XX]
- 26A21:** 1: 28A05 Classes of sets (Borel fields, σ -rings, etc.), measurable sets, Suslin sets, analytic sets [See

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- also 03E15, **26A21**, 54H05]
- 26A21:** 2: 54C50 Special sets defined by functions [See also **26A21**]
- 26A21:** 3: 54H05 Descriptive set theory (topological aspects of Borel, analytic, projective, etc. sets) [See also 03E15, **26A21**, 28A05]
- 26A24:** 1: 28A15 Abstract differentiation theory, differentiation of set functions [See also **26A24**]
- 26A33:** 1: 44-XX Integral transforms, operational calculus { For fractional derivatives and integrals, see **26A33**. For Fourier transforms, see 42A38, 42B10. For integral transforms in distribution spaces, see 46F12. For numerical methods, see 65R10 }
- 26A48:** 1: 26A12 Rate of growth of functions, orders of infinity, slowly varying functions [See also **26A48**]
- 26A51:** 1: 39B22 Equations for real functions [See also **26A51**, 26B25]
- 26A51:** 2: 39B62 Functional inequalities, including subadditivity, convexity, etc. [See also **26A51**, 26B25, 26Dxx]
- 26B15:** 1: 28A75 Length, area, volume, other geometric measure theory [See also **26B15**, 49Q15]
- 26B15:** 2: 51M25 Length, area and volume [See also **26B15**]
- 26B15:** 3: 52A38 Length, area, volume [See also **26B15**, 28A75, 49Q20]
- 26B25:** 1: 39B22 Equations for real functions [See also 26A51, **26B25**]
- 26B25:** 2: 39B62 Functional inequalities, including subadditivity, convexity, etc. [See also 26A51, **26B25**, 26Dxx]
- 26B25:** 3: 52A41 Convex functions and convex programs [See also **26B25**, 90C25]
- 26C10:** 1: 12D10 Polynomials: location of zeros (algebraic theorems) { For the analytic theory, see **26C10**, 30C15 }
- 26C10:** 2: 30C15 Zeros of polynomials, rational functions, and other analytic functions (e.g. zeros of functions with bounded Dirichlet integral) { For algebraic theory, see 12D10; for real methods, see **26C10** }
- 26D20:** 1: 34A40 Differential inequalities [See also **26D20**]
- 26Dxx:** 1: 39B62 Functional inequalities, including subadditivity, convexity, etc. [See also 26A51, 26B25, 26Dxx]
- 26E25:** 1: 28B20 Set-valued set functions and measures; integration of set-valued functions; measurable selections [See also **26E25**, 54C60, 54C65, 91B14]
- 26E25:** 2: 54C60 Set-valued maps [See also **26E25**, 28B20, 47H04, 58C06]
- 26E35:** 1: 03H05 Nonstandard models in mathematics [See also **26E35**, 28E05, 30G06, 46S20, 47S20, 54J05]
- 26E35:** 2: 28E05 Nonstandard measure theory [See also 03H05, **26E35**]
- 26E40:** 1: 03F60 Constructive and recursive analysis [See also 03B30, 03D45, 03D78, **26E40**, 46S30, 47S30]
- 26E50:** 1: 28E10 Fuzzy measure theory [See also 03E72, **26E50**, 94D05]
- 26E60:** 1: 34Nxx Dynamic equations on time scales or measure chains { For real analysis on time scales see **26E60** }
- 26E70:** 1: 34N05 Dynamic equations on time scales or measure chains { For real analysis on time scales or measure chains, see **26E70** }
- 26Exx:** 1: 58C20 Differentiation theory (Gateaux, Fréchet, etc.) [See also **26Exx**, 46G05]
- 28-XX:** 1: 26A42 Integrals of Riemann, Stieltjes and Lebesgue type [See also **28-XX**]
- 28-XX:** 2: 46Gxx Measures, integration, derivative, holomorphy (all involving infinite-dimensional spaces) [See also **28-XX**, 46Txx]
- 28A05:** 1: 03E15 Descriptive set theory [See also **28A05**, 54H05]
- 28A05:** 2: 26A21 Classification of real functions; Baire classification of sets and functions [See also 03E15, **28A05**, 54C50]
- 28A05:** 3: 54H05 Descriptive set theory (topological aspects of Borel, analytic, projective, etc. sets) [See also 03E15, 26A21, **28A05**]
- 28A15:** 1: 26A24 Differentiation (functions of one variable): general theory, generalized derivatives, mean-value theorems [See also **28A15**]
- 28A33:** 1: 46E27 Spaces of measures [See also **28A33**, 46Gxx]
- 28A51:** 1: 46G15 Functional analytic lifting theory [See also **28A51**]
- 28A75:** 1: 26B15 Integration: length, area, volume [See also **28A75**, 51M25]
- 28A75:** 2: 49Q15 Geometric measure and integration theory, integral and normal currents [See also **28A75**, 32C30, 58A25, 58C35]
- 28A75:** 3: 52A38 Length, area, volume [See also 26B15, **28A75**, 49Q20]
- 28B20:** 1: 26E25 Set-valued functions [See also **28B20**, 54C60] { For nonsmooth analysis, see 49J52, 58Cxx, 90Cxx }
- 28B20:** 2: 47H04 Set-valued operators [See also **28B20**, 54C60, 58C06]
- 28B20:** 3: 49J53 Set-valued and variational analysis [See also **28B20**, 47H04, 54C60, 58C06]
- 28B20:** 4: 54C60 Set-valued maps [See also 26E25, **28B20**, 47H04, 58C06]

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- 28B20:** 5: 54C65 Selections [See also **28B20**]
- 28Bxx:** 1: 46G10 Vector-valued measures and integration [See also **28Bxx**, 46B22]
- 28C20:** 1: 46G12 Measures and integration on abstract linear spaces [See also **28C20**, 46T12]
- 28C20:** 2: 60B11 Probability theory on linear topological spaces [See also **28C20**]
- 28Cxx:** 1: 46T12 Measure (Gaussian, cylindrical, etc.) and integrals (Feynman, path, Fresnel, etc.) on manifolds [See also **28Cxx**, 46G12, 60-XX]
- 28Cxx:** 2: 58C35 Integration on manifolds; measures on manifolds [See also **28Cxx**]
- 28Cxx:** 3: 58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps [See also **28Cxx**, 46T12]
- 28Dxx:** 1: 11K55 Metric theory of other algorithms and expansions; measure and Hausdorff dimension [See also 11N99, **28Dxx**]
- 28Dxx:** 2: 22D40 Ergodic theory on groups [See also **28Dxx**]
- 28Dxx:** 3: 22F10 Measurable group actions [See also 22D40, **28Dxx**, 37Axx]
- 28Dxx:** 4: 37-XX Dynamical systems and ergodic theory [See also 26A18, **28Dxx**, 34Cxx, 34Dxx, 35Bxx, 46Lxx, 58Jxx, 70-XX]
- 28Dxx:** 5: 37Axx Ergodic theory [See also **28Dxx**]
- 28Dxx:** 6: 46L55 Noncommutative dynamical systems [See also **28Dxx**, 37Kxx, 37Lxx, 54H20]
- 28Dxx:** 7: 47A35 Ergodic theory [See also **28Dxx**, 37Axx]
- 28Dxx:** 8: 47H25 Nonlinear ergodic theorems [See also **28Dxx**, 37Axx, 47A35]
- 28Dxx:** 9: 54H20 Topological dynamics [See also **28Dxx**, 37Bxx]
- 28Dxx:** 10: 60A10 Probabilistic measure theory { For ergodic theory, see **28Dxx** and 60Fxx }
- 28Dxx:** 11: 60Fxx Limit theorems [See also **28Dxx**, 60B12]
- 28E05:** 1: 03H05 Nonstandard models in mathematics [See also 26E35, **28E05**, 30G06, 46S20, 47S20, 54J05]
- 28E05:** 2: 26E35 Nonstandard analysis [See also 03H05, **28E05**, 54J05]
- 28E10:** 1: 26E50 Fuzzy real analysis [See also 03E72, **28E10**]
- 28E10:** 2: 94Dxx Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52, 03E72, **28E10**]
- 28E10:** 3: 94D05 Fuzzy sets and logic (in connection with questions of Section 94) [See also 03B52, 03E72, **28E10**]
- 30B70:** 1: 11A55 Continued fractions { For approximation results, see 11J70 } [See also 11K50, **30B70**, 40A15]
- 30B70:** 2: 40A15 Convergence and divergence of continued fractions [See also **30B70**]
- 30Bxx:** 1: 11N30 Turán theory [See also **30Bxx**]
- 30C15:** 1: 12D10 Polynomials: location of zeros (algebraic theorems) { For the analytic theory, see 26C10, **30C15** }
- 30C15:** 2: 26C10 Polynomials: location of zeros [See also 12D10, **30C15**, 65H05]
- 30C30:** 1: 65Exx Numerical methods in complex analysis (potential theory, etc.) { For numerical methods in conformal mapping, see also **30C30** }
- 30C30:** 2: 65E05 Numerical methods in complex analysis (potential theory, etc.) { For numerical methods in conformal mapping, see also **30C30** }
- 30C85:** 1: 31A15 Potentials and capacity, harmonic measure, extremal length [See also **30C85**]
- 30D05:** 1: 37Fxx Complex dynamical systems [See also **30D05**, 32H50]
- 30D05:** 2: 39Bxx Functional equations and inequalities [See also **30D05**]
- 30D05:** 3: 39B12 Iteration theory, iterative and composite equations [See also 26A18, **30D05**, 37-XX]
- 30D05:** 4: 39B32 Equations for complex functions [See also **30D05**]
- 30D40:** 1: 46F20 Distributions and ultradistributions as boundary values of analytic functions [See also **30D40**, 30E25, 32A40]
- 30Dxx:** 1: 34Mxx Differential equations in the complex domain [See also **30Dxx**, 32G34]
- 30E05:** 1: 41-XX Approximations and expansions { For all approximation theory in the complex domain, see **30E05** and **30E10**; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see 65Dxx }
- 30E05:** 2: 47A57 Operator methods in interpolation, moment and extension problems [See also **30E05**, 42A70, 42A82, 44A60]
- 30E10:** 1: 41-XX Approximations and expansions { For all approximation theory in the complex domain, see **30E05** and **30E10**; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see 65Dxx }
- 30E15:** 1: 41A60 Asymptotic approximations, asymptotic expansions (steepest descent, etc.) [See also **30E15**]
- 30E20:** 1: 45Exx Singular integral equations [See also **30E20**, 30E25, 44A15, 44A35]
- 30E25:** 1: 35Q15 Riemann-Hilbert problems [See also **30E25**, 31A25, 31B20]
- 30E25:** 2: 45Exx Singular integral equations [See also 30E20, **30E25**, 44A15, 44A35]

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- 30E25:** 3: 46F20 Distributions and ultradistributions as boundary values of analytic functions [See also 30D40, **30E25**, 32A40]
- 30F10:** 1: 14H15 Families, moduli (analytic) [See also **30F10**, 32Gxx]
- 30F35:** 1: 11Fxx Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, 14Kxx, 22E50, 22E55, **30F35**, 32Nxx] { For relations with quadratic forms, see 11E45 }
- 30F35:** 2: 20H10 Fuchsian groups and their generalizations [See also 11F06, 22E40, **30F35**, 32Nxx]
- 30F35:** 3: 32Nxx Automorphic functions [See also 11Fxx, 20H10, 22E40, **30F35**]
- 30Fxx:** 1: 14H55 Riemann surfaces; Weierstrass points; gap sequences [See also **30Fxx**]
- 30Fxx:** 2: 32G15 Moduli of Riemann surfaces, Teichmüller theory [See also 14H15, **30Fxx**]
- 30Fxx:** 3: 32Jxx Compact analytic spaces { For Riemann surfaces, see 14Hxx, **30Fxx**; for algebraic theory, see 14Jxx }
- 30G06:** 1: 03H05 Nonstandard models in mathematics [See also 26E35, 28E05, **30G06**, 46S20, 47S20, 54J05]
- 30G06:** 2: 12J25 Non-Archimedean valued fields [See also **30G06**, 32P05, 46S10, 47S10]
- 30G35:** 1: 32A30 Other generalizations of function theory of one complex variable (should also be assigned at least one classification number from Section 30) { For functions of several hypercomplex variables, see **30G35** }
- 30H05:** 1: 32A38 Algebras of holomorphic functions [See also **30H05**, 46J10, 46J15]
- 30H05:** 2: 46Exx Linear function spaces and their duals [See also **30H05**, 32A38, 46F05] { For function algebras, see 46J10 }
- 30H10:** 1: 46J15 Banach algebras of differentiable or analytic functions, H^p -spaces [See also **30H10**, 32A35, 32A37, 32A38, 42B30]
- 31-XX:** 1: 47G40 Potential operators [See also **31-XX**]
- 31A15:** 1: 30C85 Capacity and harmonic measure in the complex plane [See also **31A15**]
- 31A25:** 1: 35Q15 Riemann-Hilbert problems [See also 30E25, **31A25**, 31B20]
- 31A30:** 1: 35J30 Higher-order elliptic equations [See also **31A30**, 31B30]
- 31Axx:** 1: 35J05 Laplacian operator, reduced wave equation (Helmholtz equation), Poisson equation [See also **31Axx**, 31Bxx]
- 31B20:** 1: 35Q15 Riemann-Hilbert problems [See also 30E25, 31A25, **31B20**]
- 31B30:** 1: 35J30 Higher-order elliptic equations [See also 31A30, **31B30**]
- 31Bxx:** 1: 35J05 Laplacian operator, reduced wave equation (Helmholtz equation), Poisson equation [See also **31Axx**, **31Bxx**]
- 31C10:** 1: 32U05 Plurisubharmonic functions and generalizations [See also **31C10**]
- 31C12:** 1: 53C20 Global Riemannian geometry, including pinching [See also **31C12**, 58B20]
- 31Cxx:** 1: 60J45 Probabilistic potential theory [See also **31Cxx**, 31D05]
- 31D05:** 1: 60J45 Probabilistic potential theory [See also 31Cxx, **31D05**]
- 32-XX:** 1: 46G20 Infinite-dimensional holomorphy [See also **32-XX**, 46E50, 46T25, 58B12, 58C10]
- 32-XX:** 2: 58B12 Questions of holomorphy [See also **32-XX**, 46G20]
- 32-XX:** 3: 58C10 Holomorphic maps [See also **32-XX**]
- 32A10:** 1: 37F10 Polynomials; rational maps; entire and meromorphic functions [See also **32A10**, 32A20, 32H02, 32H04]
- 32A20:** 1: 37F10 Polynomials; rational maps; entire and meromorphic functions [See also 32A10, **32A20**, 32H02, 32H04]
- 32A22:** 1: 32H25 Picard-type theorems and generalizations { For function-theoretic properties, see **32A22** }
- 32A22:** 2: 32H30 Value distribution theory in higher dimensions { For function-theoretic properties, see **32A22** }
- 32A25:** 1: 32C30 Integration on analytic sets and spaces, currents { For local theory, see **32A25** or 32A27 }
- 32A25:** 2: 46F15 Hyperfunctions, analytic functionals [See also **32A25**, 32A45, 32C35, 58J15]
- 32A25:** 3: 47B35 Toeplitz operators, Hankel operators, Wiener-Hopf operators [See also 45P05, 47G10 for other integral operators; see also **32A25**, 32M15]
- 32A27:** 1: 32C30 Integration on analytic sets and spaces, currents { For local theory, see 32A25 or **32A27** }
- 32A35:** 1: 46J15 Banach algebras of differentiable or analytic functions, H^p -spaces [See also 30H10, **32A35**, 32A37, 32A38, 42B30]
- 32A37:** 1: 46J15 Banach algebras of differentiable or analytic functions, H^p -spaces [See also 30H10, 32A35, **32A37**, 32A38, 42B30]
- 32A38:** 1: 46Exx Linear function spaces and their duals [See also 30H05, **32A38**, 46F05] { For function algebras, see 46J10 }
- 32A38:** 2: 46J15 Banach algebras of differentiable or analytic functions, H^p -spaces [See also 30H10, 32A35, 32A37, **32A38**, 42B30]
- 32A40:** 1: 46F20 Distributions and ultradistributions as boundary values of analytic functions [See also 30D40, 30E25, **32A40**]

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- 32A45:** 1: 46F15 Hyperfunctions, analytic functionals [See also 32A25, **32A45**, 32C35, 58J15]
- 32B05:** 1: 13J07 Analytical algebras and rings [See also **32B05**]
- 32B05:** 2: 26E05 Real-analytic functions [See also **32B05**, 32C05]
- 32B20:** 1: 14P15 Real analytic and semianalytic sets [See also **32B20**, 32C05]
- 32C05:** 1: 14P15 Real analytic and semianalytic sets [See also 32B20, **32C05**]
- 32C05:** 2: 26E05 Real-analytic functions [See also 32B05, **32C05**]
- 32C07:** 1: 14P20 Nash functions and manifolds [See also **32C07**, 58A07]
- 32C07:** 2: 58A07 Real-analytic and Nash manifolds [See also 14P20, **32C07**]
- 32C11:** 1: 14M30 Supervarieties [See also **32C11**, 58A50]
- 32C11:** 2: 58A50 Supermanifolds and graded manifolds [See also 14A22, **32C11**]
- 32C30:** 1: 32A27 Local theory of residues [See also **32C30**]
- 32C30:** 2: 49Q15 Geometric measure and integration theory, integral and normal currents [See also 28A75, **32C30**, 58A25, 58C35]
- 32C30:** 3: 58A25 Currents [See also **32C30**, 53C65]
- 32C35:** 1: 14F40 de Rham cohomology [See also 14C30, **32C35**, 32L10]
- 32C35:** 2: 18F20 Presheaves and sheaves [See also 14F05, **32C35**, 32L10, 54B40, 55N30]
- 32C35:** 3: 46F15 Hyperfunctions, analytic functionals [See also 32A25, 32A45, **32C35**, 58J15]
- 32C35:** 4: 55N30 Sheaf cohomology [See also 18F20, **32C35**, 32L10]
- 32C36:** 1: 14B15 Local cohomology [See also 13D45, **32C36**]
- 32C38:** 1: 13N10 Rings of differential operators and their modules [See also 16S32, **32C38**]
- 32C38:** 2: 14F10 Differentials and other special sheaves; D-modules; Bernstein-Sato ideals and polynomials [See also 13Nxx, **32C38**]
- 32C38:** 3: 16S32 Rings of differential operators [See also 13N10, **32C38**]
- 32C38:** 4: 35A27 Microlocal methods; methods of sheaf theory and homological algebra in PDE [See also **32C38**, 58J15]
- 32C38:** 5: 35S35 Topological aspects: intersection cohomology, stratified sets, etc. [See also **32C38**, 32S40, 32S60, 58J15]
- 32Cxx:** 1: 46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, **32Cxx**, 32Lxx, 46L80, 46M15, 46M18, 55Rxx]
- 32Cxx:** 2: 53B35 Hermitian and Kählerian structures [See also **32Cxx**]
- 32Cxx:** 3: 53C55 Hermitian and Kählerian manifolds [See also **32Cxx**]
- 32Cxx:** 4: 53C56 Other complex differential geometry [See also **32Cxx**]
- 32Cxx:** 5: 58-XX Global analysis, analysis on manifolds [See also **32Cxx**, 32Fxx, 32Wxx, 46-XX, 47Hxx, 53Cxx] { For geometric integration theory, see 49Q15 }
- 32Cxx:** 6: 58Axx General theory of differentiable manifolds [See also **32Cxx**]
- 32F10:** 1: 32L15 Bundle convexity [See also **32F10**]
- 32Fxx:** 1: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, **32Fxx**, 32Wxx, 46-XX, 47Hxx, 53Cxx] { For geometric integration theory, see 49Q15 }
- 32G13:** 1: 14D20 Algebraic moduli problems, moduli of vector bundles { For analytic moduli problems, see **32G13** }
- 32G13:** 2: 14J15 Moduli, classification: analytic theory; relations with modular forms [See also **32G13**]
- 32G15:** 1: 30F10 Compact Riemann surfaces and uniformization [See also 14H15, **32G15**]
- 32G15:** 2: 30F60 Teichmüller theory [See also **32G15**]
- 32G20:** 1: 14C30 Transcendental methods, Hodge theory [See also 14D07, **32G20**, 32J25, 32S35], Hodge conjecture
- 32G20:** 2: 14C34 Torelli problem [See also **32G20**]
- 32G20:** 3: 14D07 Variation of Hodge structures [See also **32G20**]
- 32G20:** 4: 14H40 Jacobians, Prym varieties [See also **32G20**]
- 32G20:** 5: 14H42 Theta functions; Schottky problem [See also 14K25, **32G20**]
- 32G20:** 6: 14K30 Picard schemes, higher Jacobians [See also 14H40, **32G20**]
- 32G34:** 1: 34Mxx Differential equations in the complex domain [See also 30Dxx, **32G34**]
- 32Gxx:** 1: 13D10 Deformations and infinitesimal methods [See also 14B10, 14B12, 14D15, **32Gxx**]
- 32Gxx:** 2: 14D15 Formal methods; deformations [See also 13D10, 14B07, **32Gxx**]
- 32Gxx:** 3: 14H15 Families, moduli (analytic) [See also 30F10, **32Gxx**]
- 32Gxx:** 4: 30F35 Fuchsian groups and automorphic functions [See also 11Fxx, 20H10, 22E40, **32Gxx**, 32Nxx]
- 32Gxx:** 5: 58H15 Deformations of structures [See also **32Gxx**, 58J10]
- 32H02:** 1: 37F10 Polynomials; rational maps; entire and meromorphic functions [See also 32A10, 32A20, **32H02**, 32H04]
- 32H04:** 1: 37F10 Polynomials; rational maps; entire and meromorphic functions [See also 32A10, 32A20, 32H02, **32H04**]

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32H25:	1:	32A22	Nevanlinna theory (local); growth estimates; other inequalities { For geometric theory, see 32H25 , 32H30 }
32H30:	1:	32A22	Nevanlinna theory (local); growth estimates; other inequalities { For geometric theory, see 32H25 , 32H30 }
32H50:	1:	37Fxx	Complex dynamical systems [See also 30D05, 32H50]
32J25:	1:	14C30	Transcendental methods, Hodge theory [See also 14D07, 32G20, 32J25 , 32S35], Hodge conjecture
32J25:	2:	58A14	Hodge theory [See also 14C30, 14Fxx, 32J25 , 32S35]
32Jxx:	1:	14Jxx	Surfaces and higher-dimensional varieties { For analytic theory, see 32Jxx }
32Jxx:	2:	57N13	Topology of E^4 , 4-manifolds [See also 14Jxx, 32Jxx]
32L10:	1:	14F40	de Rham cohomology [See also 14C30, 32C35, 32L10]
32L10:	2:	18F20	Presheaves and sheaves [See also 14F05, 32C35, 32L10 , 54B40, 55N30]
32L10:	3:	55N30	Sheaf cohomology [See also 18F20, 32C35, 32L10]
32L20:	1:	14F17	Vanishing theorems [See also 32L20]
32L25:	1:	53C28	Twistor methods [See also 32L25]
32L25:	2:	81R25	Spinor and twistor methods [See also 32L25]
32Lxx:	1:	14F05	Sheaves, derived categories of sheaves and related constructions [See also 14H60, 14J60, 18F20, 32Lxx , 46M20]
32Lxx:	2:	14J60	Vector bundles on surfaces and higher-dimensional varieties, and their moduli [See also 14D20, 14F05, 32Lxx]
32Lxx:	3:	46M20	Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, 32Cxx, 32Lxx , 46L80, 46M15, 46M18, 55Rxx]
32Lxx:	4:	55Rxx	Fiber spaces and bundles [See also 18F15, 32Lxx , 46M20, 57R20, 57R22, 57R25]
32M05:	1:	22E10	General properties and structure of complex Lie groups [See also 32M05]
32M10:	1:	14M15	Grassmannians, Schubert varieties, flag manifolds [See also 32M10 , 51M35]
32M10:	2:	14M17	Homogeneous spaces and generalizations [See also 32M10 , 53C30, 57T15]
32M10:	3:	53C30	Homogeneous manifolds [See also 14M15, 14M17, 32M10 , 57T15]
32M15:	1:	32A35	H^p -spaces, Nevanlinna spaces [See also 32M15 , 42B30, 43A85, 46J15]
32M15:	2:	47B35	Toeplitz operators, Hankel operators, Wiener-Hopf operators [See also 45P05, 47G10 for other integral operators; see also 32A25, 32M15]
32M15:	3:	53C35	Symmetric spaces [See also 32M15 , 57T15]
32M25:	1:	37F75	Holomorphic foliations and vector fields [See also 32M25 , 32S65, 34Mxx]
32Nxx:	1:	11Fxx	Discontinuous groups and automorphic forms [See also 11R39, 11S37, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx] { For relations with quadratic forms, see 11E45 }
32Nxx:	2:	20H10	Fuchsian groups and their generalizations [See also 11F06, 22E40, 30F35, 32Nxx]
32Nxx:	3:	22E40	Discrete subgroups of Lie groups [See also 20Hxx, 32Nxx]
32Nxx:	4:	30F35	Fuchsian groups and automorphic functions [See also 11Fxx, 20H10, 22E40, 32Gxx, 32Nxx]
32P05:	1:	12J25	Non-Archimedean valued fields [See also 30G06, 32P05 , 46S10, 47S10]
32P05:	2:	12J27	Krasner-Tate algebras [See mainly 32P05 ; see also 46S10, 47S10]
32P05:	3:	46S10	Functional analysis over fields other than \mathbf{R} or \mathbf{C} or the quaternions; non-Archimedean functional analysis [See also 12J25, 32P05]
32Q20:	1:	53C07	Special connections and metrics on vector bundles (Hermite-Einstein-Yang-Mills) [See also 32Q20]
32Q25:	1:	14J30	3-folds [See also 32Q25]
32Qxx:	1:	57-XX	Manifolds and cell complexes { For complex manifolds, see 32Qxx }
32S20:	1:	14E15	Global theory and resolution of singularities [See also 14B05, 32S20 , 32S45]
32S22:	1:	52C35	Arrangements of points, flats, hyperplanes [See also 32S22]
32S30:	1:	14B07	Deformations of singularities [See also 14D15, 32S30]
32S35:	1:	14C30	Transcendental methods, Hodge theory [See also 14D07, 32G20, 32J25, 32S35], Hodge conjecture
32S35:	2:	58A14	Hodge theory [See also 14C30, 14Fxx, 32J25, 32S35]
32S40:	1:	35S35	Topological aspects: intersection cohomology, stratified sets, etc. [See also 32C38, 32S40 , 32S60, 58J15]
32S40:	2:	81Q30	Feynman integrals and graphs; applications of algebraic topology and algebraic geometry [See also 14D05, 32S40]
32S45:	1:	14E15	Global theory and resolution of singularities [See also 14B05, 32S20, 32S45]
32S60:	1:	35S35	Topological aspects: intersection cohomology, stratified sets, etc. [See also 32C38, 32S40, 32S60 , 58J15]
32S60:	2:	58A35	Stratified sets [See also 32S60]
32S65:	1:	37F75	Holomorphic foliations and vector fields [See also 32M25, 32S65 , 34Mxx]

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- 32Sxx:** 1: 14B05 Singularities [See also 14E15, 14H20, 14J17, **32Sxx**, 58Kxx]
32Sxx: 2: 58Kxx Theory of singularities and catastrophe theory [See also **32Sxx**, 37-XX]
32U05: 1: 31C10 Pluriharmonic and plurisubharmonic functions [See also **32U05**]
32W05: 1: 35N15 $\bar{\partial}$ -Neumann problem and generalizations; formal complexes [See also **32W05**, 32W10, 58J10]
32W10: 1: 35N15 $\bar{\partial}$ -Neumann problem and generalizations; formal complexes [See also 32W05, **32W10**, 58J10]
32Wxx: 1: 35R01 Partial differential equations on manifolds [See also **32Wxx**, 53Cxx, 58Jxx]
32Wxx: 2: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, 32Fxx, **32Wxx**, 46-XX, 47Hxx, 53Cxx] { For geometric integration theory, see 49Q15 }
32Wxx: 3: 58Jxx Partial differential equations on manifolds; differential operators [See also **32Wxx**, 35-XX, 53Cxx]
33-XX: 1: 11B37 Recurrences { For applications to special functions, see **33-XX** }
33-XX: 2: 33-XX Special functions (**33-XX** deals with the properties of functions as functions) { For orthogonal functions, see 42Cxx; for aspects of combinatorics see 05Axx; for number-theoretic aspects see 11-XX; for representation theory see 22Exx }
33C45: 1: 42C05 Orthogonal functions and polynomials, general theory [See also **33C45**, 33C50, 33D45]
33C50: 1: 42C05 Orthogonal functions and polynomials, general theory [See also 33C45, **33C50**, 33D45]
33C55: 1: 43A90 Spherical functions [See also 22E45, 22E46, **33C55**]
33C80: 1: 05E15 Combinatorial aspects of groups and algebras [See also 14Nxx, 22E45, **33C80**]
33C80: 2: 22E30 Analysis on real and complex Lie groups [See also **33C80**, 43-XX]
33Cxx: 1: 05A10 Factorials, binomial coefficients, combinatorial functions [See also 11B65, **33Cxx**]
33Cxx: 2: 05A15 Exact enumeration problems, generating functions [See also **33Cxx**, 33Dxx]
33D45: 1: 42C05 Orthogonal functions and polynomials, general theory [See also 33C45, 33C50, **33D45**]
33Dxx: 1: 05A15 Exact enumeration problems, generating functions [See also 33Cxx, **33Dxx**]
33Dxx: 2: 05A30 q -calculus and related topics [See also **33Dxx**]
33Dxx: 3: 39A13 Difference equations, scaling (q -differences) [See also **33Dxx**]
33F05: 1: 65D20 Computation of special functions, construction of tables [See also **33F05**]
33F10: 1: 68W30 Symbolic computation and algebraic computation [See also 11Yxx, 12Y05, 13Pxx, 14Qxx, 16Z05, 17-08, **33F10**]
34-XX: 1: 22E05 Local Lie groups [See also **34-XX**, 35-XX, 58H05]
34A12: 1: 45Dxx Volterra integral equations [See also **34A12**]
34A12: 2: 45D05 Volterra integral equations [See also **34A12**]
34A55: 1: 81Uxx Scattering theory [See also **34A55**, 34L25, 34L40, 35P25, 47A40]
34A60: 1: 47J22 Variational and other types of inclusions [See also **34A60**, 49J21, 49K21]
34Bxx: 1: 47Exx Ordinary differential operators [See also **34Bxx**, 34Lxx]
34Bxx: 2: 47E05 Ordinary differential operators [See also **34Bxx**, 34Lxx] (should also be assigned at least one other classification number in section 47)
34C23: 1: 37Gxx Local and nonlocal bifurcation theory [See also **34C23**, 34K18]
34C23: 2: 47J15 Abstract bifurcation theory [See also **34C23**, 37Gxx, 58E07, 58E09]
34C55: 1: 47J40 Equations with hysteresis operators [See also **34C55**, 74N30]
34Cxx: 1: 37-XX Dynamical systems and ergodic theory [See also 26A18, 28Dxx, **34Cxx**, 34Dxx, 35Bxx, 46Lxx, 58Jxx, 70-XX]
34Cxx: 2: 37Cxx Smooth dynamical systems: general theory [See also **34Cxx**, 34Dxx]
34Cxx: 3: 70Kxx Nonlinear dynamics [See also **34Cxx**, 37-XX]
34D08: 1: 37Hxx Random dynamical systems [See also 15B52, **34D08**, 34F05, 47B80, 70L05, 82C05, 93Exx]
34D08: 2: 37H15 Multiplicative ergodic theory, Lyapunov exponents [See also **34D08**, 37Axx, 37Cxx, 37Dxx]
34Dxx: 1: 37-XX Dynamical systems and ergodic theory [See also 26A18, 28Dxx, 34Cxx, **34Dxx**, 35Bxx, 46Lxx, 58Jxx, 70-XX]
34Dxx: 2: 37Cxx Smooth dynamical systems: general theory [See also 34Cxx, **34Dxx**]
34E20: 1: 34M60 Singular perturbation problems in the complex domain (complex WKB, turning points, steepest descent) [See also **34E20**]
34E20: 2: 78A45 Diffraction, scattering [See also **34E20** for WKB methods]
34E20: 3: 81U05 2-body potential scattering theory [See also **34E20** for WKB methods]
34F05: 1: 37Hxx Random dynamical systems [See also 15B52, 34D08, **34F05**, 47B80, 70L05, 82C05, 93Exx]
34F05: 2: 37H10 Generation, random and stochastic difference and differential equations [See also **34F05**, 34K50, 60H10, 60H15]
34F05: 3: 60H10 Stochastic ordinary differential equations [See also **34F05**]

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- 34G10:** 1: 47D06 One-parameter semigroups and linear evolution equations [See also **34G10**, 34K30]
34G10: 2: 47D09 Operator sine and cosine functions and higher-order Cauchy problems [See also **34G10**]
34G20: 1: 47J35 Nonlinear evolution equations [See also **34G20**, 35K90, 35L90, 35Qxx, 35R20, 37Kxx, 37Lxx, 47H20, 58D25]
34Gxx: 1: 34K30 Equations in abstract spaces [See also **34Gxx**, 35R09, 35R10, 47Jxx]
34Gxx: 2: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also **34Gxx**, 47A50, 47D03, 47D06, 47D09, 47H20, 47Jxx]
34Gxx: 3: 58D25 Equations in function spaces; evolution equations [See also **34Gxx**, 35K90, 35L90, 35R15, 37Lxx, 47Jxx]
34H05: 1: 49-XX Calculus of variations and optimal control; optimization [See also **34H05**, 34K35, 65Kxx, 90Cxx, 93-XX]
34H05: 2: 93C15 Systems governed by ordinary differential equations [See also **34H05**]
34K05: 1: 45Jxx Integro-ordinary differential equations [See also **34K05**, 34K30, 47G20]
34K05: 2: 45J05 Integro-ordinary differential equations [See also **34K05**, 34K30, 47G20]
34K18: 1: 37Gxx Local and nonlocal bifurcation theory [See also 34C23, **34K18**]
34K30: 1: 45Jxx Integro-ordinary differential equations [See also 34K05, **34K30**, 47G20]
34K30: 2: 45J05 Integro-ordinary differential equations [See also 34K05, **34K30**, 47G20]
34K30: 3: 45Kxx Integro-partial differential equations [See also **34K30**, 35R09, 35R10, 47G20]
34K30: 4: 45K05 Integro-partial differential equations [See also **34K30**, 35R09, 35R10, 47G20]
34K30: 5: 47D06 One-parameter semigroups and linear evolution equations [See also 34G10, **34K30**]
34K30: 6: 47G20 Integro-differential operators [See also **34K30**, 35R09, 35R10, 45Jxx, 45Kxx]
34K35: 1: 49-XX Calculus of variations and optimal control; optimization [See also 34H05, **34K35**, 65Kxx, 90Cxx, 93-XX]
34K35: 2: 93C23 Systems governed by functional-differential equations [See also **34K35**]
34K50: 1: 34Fxx Equations and systems with randomness [See also **34K50**, 60H10, 93E03]
34K50: 2: 34F05 Equations and systems with randomness [See also **34K50**, 60H10, 93E03]
34K50: 3: 37H10 Generation, random and stochastic difference and differential equations [See also 34F05, **34K50**, 60H10, 60H15]
34L25: 1: 47A40 Scattering theory [See also **34L25**, 35P25, 37K15, 58J50, 81Uxx]
34L25: 2: 81Uxx Scattering theory [See also 34A55, **34L25**, 34L40, 35P25, 47A40]
34L40: 1: 81Uxx Scattering theory [See also 34A55, 34L25, **34L40**, 35P25, 47A40]
34Lxx: 1: 34Bxx Boundary value problems { For ordinary differential operators, see **34Lxx** }
34Lxx: 2: 34B24 Sturm-Liouville theory [See also **34Lxx**]
34Lxx: 3: 34Gxx Differential equations in abstract spaces [See also **34Lxx**, 37Kxx, 47Dxx, 47Hxx, 47Jxx, 58D25]
34Lxx: 4: 45Cxx Eigenvalue problems [See also **34Lxx**, 35Pxx, 45P05, 47A75]
34Lxx: 5: 45C05 Eigenvalue problems [See also **34Lxx**, 35Pxx, 45P05, 47A75]
34Lxx: 6: 47Exx Ordinary differential operators [See also 34Bxx, **34Lxx**]
34Lxx: 7: 47E05 Ordinary differential operators [See also 34Bxx, **34Lxx**] (should also be assigned at least one other classification number in section 47)
34Mxx: 1: 12H20 Abstract differential equations [See also **34Mxx**]
34Mxx: 2: 30D05 Functional equations in the complex domain, iteration and composition of analytic functions [See also **34Mxx**, 37Fxx, 39-XX]
34Mxx: 3: 32G34 Moduli and deformations for ordinary differential equations (e.g. Knizhnik-Zamolodchikov equation) [See also **34Mxx**]
34Mxx: 4: 37F75 Holomorphic foliations and vector fields [See also 32M25, 32S65, **34Mxx**]
34N05: 1: 26E70 Real analysis on time scales or measure chains { For dynamic equations on time scales or measure chains see **34N05** }
34N05: 2: 39Axx Difference equations { For dynamical systems, see 37-XX, for dynamic equations on time scales, see **34N05** }
35-XX: 1: 22E05 Local Lie groups [See also 34-XX, **35-XX**, 58H05]
35-XX: 2: 42B37 Harmonic analysis and PDE [See also **35-XX**]
35-XX: 3: 58Jxx Partial differential equations on manifolds; differential operators [See also 32Wxx, **35-XX**, 53Cxx]
35-XX: 4: 58J05 Elliptic equations on manifolds, general theory [See also **35-XX**]
35A22: 1: 58J72 Correspondences and other transformation methods (e.g. Lie-Bäcklund) [See also **35A22**]
35A27: 1: 32C38 Sheaves of differential operators and their modules, D -modules [See also 14F10, 16S32, **35A27**, 58J15]
35A30: 1: 58J70 Invariance and symmetry properties [See also **35A30**]
35Axx: 1: 37Kxx Infinite-dimensional Hamiltonian systems [See also **35Axx**, 35Qxx]

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35B32:	1:	58J55	Bifurcation [See also 35B32]
35Bxx:	1:	35Kxx	Parabolic equations and systems [See also 35Bxx , 35Dxx, 35R30, 35R35, 58J35]
35Bxx:	2:	37-XX	Dynamical systems and ergodic theory [See also 26A18, 28Dxx, 34Cxx, 34Dxx, 35Bxx , 46Lxx, 58Jxx, 70-XX]
35Bxx:	3:	37Lxx	Infinite-dimensional dissipative dynamical systems [See also 35Bxx , 35Qxx]
35C11:	1:	76B25	Solitary waves [See also 35C11]
35Dxx:	1:	35Kxx	Parabolic equations and systems [See also 35Bxx, 35Dxx , 35R30, 35R35, 58J35]
35J05:	1:	35Qxx	Equations of mathematical physics and other areas of application [See also 35J05 , 35J10, 35K05, 35L05]
35J10:	1:	35Qxx	Equations of mathematical physics and other areas of application [See also 35J05, 35J10 , 35K05, 35L05]
35J15:	1:	45E05	Integral equations with kernels of Cauchy type [See also 35J15]
35K05:	1:	35Qxx	Equations of mathematical physics and other areas of application [See also 35J05, 35J10, 35K05 , 35L05]
35K90:	1:	47J35	Nonlinear evolution equations [See also 34G20, 35K90 , 35L90, 35Qxx, 35R20, 37Kxx, 37Lxx, 47H20, 58D25]
35K90:	2:	58D25	Equations in function spaces; evolution equations [See also 34Gxx, 35K90 , 35L90, 35R15, 37Lxx, 47Jxx]
35L05:	1:	35Qxx	Equations of mathematical physics and other areas of application [See also 35J05, 35J10, 35K05, 35L05]
35L60:	1:	76N10	Existence, uniqueness, and regularity theory [See also 35L60 , 35L65, 35Q30]
35L65:	1:	76N10	Existence, uniqueness, and regularity theory [See also 35L60, 35L65 , 35Q30]
35L67:	1:	76Lxx	Shock waves and blast waves [See also 35L67]
35L67:	2:	76L05	Shock waves and blast waves [See also 35L67]
35L90:	1:	47J35	Nonlinear evolution equations [See also 34G20, 35K90, 35L90 , 35Qxx, 35R20, 37Kxx, 37Lxx, 47H20, 58D25]
35L90:	2:	58D25	Equations in function spaces; evolution equations [See also 34Gxx, 35K90, 35L90 , 35R15, 37Lxx, 47Jxx]
35Lxx:	1:	58J45	Hyperbolic equations [See also 35Lxx]
35N05:	1:	35Exx	Equations and systems with constant coefficients [See also 35N05]
35Nxx:	1:	58J10	Differential complexes [See also 35Nxx]; elliptic complexes
35P25:	1:	47A40	Scattering theory [See also 34L25, 35P25 , 37K15, 58J50, 81Uxx]
35P25:	2:	81Uxx	Scattering theory [See also 34A55, 34L25, 34L40, 35P25 , 47A40]
35Pxx:	1:	35J10	Schrödinger operator [See also 35Pxx]
35Pxx:	2:	45Cxx	Eigenvalue problems [See also 34Lxx, 35Pxx , 45P05, 47A75]
35Pxx:	3:	45C05	Eigenvalue problems [See also 34Lxx, 35Pxx , 45P05, 47A75]
35Pxx:	4:	47Fxx	Partial differential operators [See also 35Pxx , 58Jxx]
35Pxx:	5:	47F05	Partial differential operators [See also 35Pxx , 58Jxx] (should also be assigned at least one other classification number in section 47)
35Pxx:	6:	58J50	Spectral problems; spectral geometry; scattering theory [See also 35Pxx]
35Q30:	1:	76B15	Water waves, gravity waves; dispersion and scattering, nonlinear interaction [See also 35Q30]
35Q30:	2:	76D03	Existence, uniqueness, and regularity theory [See also 35Q30]
35Q30:	3:	76D05	Navier-Stokes equations [See also 35Q30]
35Q30:	4:	76N10	Existence, uniqueness, and regularity theory [See also 35L60, 35L65, 35Q30]
35Q35:	1:	76B03	Existence, uniqueness, and regularity theory [See also 35Q35]
35Qxx:	1:	37Kxx	Infinite-dimensional Hamiltonian systems [See also 35Axx, 35Qxx]
35Qxx:	2:	37Lxx	Infinite-dimensional dissipative dynamical systems [See also 35Bxx, 35Qxx]
35Qxx:	3:	47J35	Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx , 35R20, 37Kxx, 37Lxx, 47H20, 58D25]
35R09:	1:	34K30	Equations in abstract spaces [See also 34Gxx, 35R09 , 35R10, 47Jxx]
35R09:	2:	45Kxx	Integro-partial differential equations [See also 34K30, 35R09 , 35R10, 47G20]
35R09:	3:	45K05	Integro-partial differential equations [See also 34K30, 35R09 , 35R10, 47G20]
35R09:	4:	47G20	Integro-differential operators [See also 34K30, 35R09 , 35R10, 45Jxx, 45Kxx]
35R10:	1:	34K30	Equations in abstract spaces [See also 34Gxx, 35R09, 35R10 , 47Jxx]
35R10:	2:	45Kxx	Integro-partial differential equations [See also 34K30, 35R09, 35R10 , 47G20]
35R10:	3:	45K05	Integro-partial differential equations [See also 34K30, 35R09, 35R10 , 47G20]
35R10:	4:	47G20	Integro-differential operators [See also 34K30, 35R09, 35R10 , 45Jxx, 45Kxx]
35R15:	1:	58D25	Equations in function spaces; evolution equations [See also 34Gxx, 35K90, 35L90, 35R15 , 37Lxx, 47Jxx]
35R20:	1:	47J35	Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx, 35R20 , 37Kxx,

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- 37Lxx, 47H20, 58D25]
- 35R25:** 1: 47A52 Ill-posed problems, regularization [See also **35R25**, 47J06, 65F22, 65J20, 65L08, 65M30, 65R30]
- 35R25:** 2: 47J06 Nonlinear ill-posed problems [See also **35R25**, 47A52, 65F22, 65J20, 65L08, 65M30, 65R30]
- 35R30:** 1: 35Kxx Parabolic equations and systems [See also 35Bxx, 35Dxx, **35R30**, 35R35, 58J35]
- 35R30:** 2: 86A22 Inverse problems [See also **35R30**]
- 35R35:** 1: 35J86 Linear elliptic unilateral problems and linear elliptic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 2: 35J87 Nonlinear elliptic unilateral problems and nonlinear elliptic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 3: 35J88 Systems of elliptic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 4: 35Kxx Parabolic equations and systems [See also 35Bxx, 35Dxx, 35R30, **35R35**, 58J35]
- 35R35:** 5: 35K85 Linear parabolic unilateral problems and linear parabolic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 6: 35K86 Nonlinear parabolic unilateral problems and nonlinear parabolic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 7: 35K87 Systems of parabolic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 8: 35L85 Linear hyperbolic unilateral problems and linear hyperbolic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 9: 35L86 Nonlinear hyperbolic unilateral problems and nonlinear hyperbolic variational inequalities [See also **35R35**, 49J40]
- 35R35:** 10: 35L87 Unilateral problems and variational inequalities for hyperbolic systems [See also **35R35**, 49J40]
- 35R35:** 11: 35M85 Linear unilateral problems and variational inequalities of mixed type [See also **35R35**, 49J40]
- 35R35:** 12: 35M86 Nonlinear unilateral problems and nonlinear variational inequalities of mixed type [See also **35R35**, 49J40]
- 35R35:** 13: 35M87 Systems of variational inequalities of mixed type [See also **35R35**, 49J40]
- 35R60:** 1: 37L55 Infinite-dimensional random dynamical systems; stochastic equations [See also **35R60**, 60H10, 60H15]
- 35R60:** 2: 58J65 Diffusion processes and stochastic analysis on manifolds [See also **35R60**, 60H10, 60J60]
- 35R60:** 3: 60H15 Stochastic partial differential equations [See also **35R60**]
- 35Sxx:** 1: 47G30 Pseudodifferential operators [See also **35Sxx**, 58Jxx]
- 35Sxx:** 2: 58J40 Pseudodifferential and Fourier integral operators on manifolds [See also **35Sxx**]
- 37-XX:** 1: 34Cxx Qualitative theory [See also **37-XX**]
- 37-XX:** 2: 34Kxx Functional-differential and differential-difference equations [See also **37-XX**]
- 37-XX:** 3: 39Axx Difference equations { For dynamical systems, see **37-XX**, for dynamic equations on time scales, see 34N05 }
- 37-XX:** 4: 39B12 Iteration theory, iterative and composite equations [See also 26A18, 30D05, **37-XX**]
- 37-XX:** 5: 57Sxx Topological transformation groups [See also 20F34, 22-XX, **37-XX**, 54H15, 58D05]
- 37-XX:** 6: 58Kxx Theory of singularities and catastrophe theory [See also 32Sxx, **37-XX**]
- 37-XX:** 7: 70Gxx General models, approaches, and methods [See also **37-XX**]
- 37-XX:** 8: 70Kxx Nonlinear dynamics [See also 34Cxx, **37-XX**]
- 37-XX:** 9: 76Fxx Turbulence [See also **37-XX**, 60Gxx, 60Jxx]
- 37-XX:** 10: 76F20 Dynamical systems approach to turbulence [See also **37-XX**]
- 37Axx:** 1: 22F10 Measurable group actions [See also 22D40, 28Dxx, **37Axx**]
- 37Axx:** 2: 28Dxx Measure-theoretic ergodic theory [See also 11K50, 11K55, 22D40, **37Axx**, 47A35, 54H20, 60Fxx, 60G10]
- 37Axx:** 3: 37H05 Foundations, general theory of cocycles, algebraic ergodic theory [See also **37Axx**]
- 37Axx:** 4: 37H15 Multiplicative ergodic theory, Lyapunov exponents [See also 34D08, **37Axx**, 37Cxx, 37Dxx]
- 37Axx:** 5: 47A35 Ergodic theory [See also 28Dxx, **37Axx**]
- 37Axx:** 6: 47H25 Nonlinear ergodic theorems [See also 28Dxx, **37Axx**, 47A35]
- 37B15:** 1: 68Q80 Cellular automata [See also **37B15**]
- 37B55:** 1: 37C60 Nonautonomous smooth dynamical systems [See also **37B55**]
- 37Bxx:** 1: 26A18 Iteration [See also **37Bxx**, 37Cxx, 37Exx, 39B12, 47H10, 54H25]
- 37Bxx:** 2: 54H20 Topological dynamics [See also 28Dxx, **37Bxx**]
- 37C10:** 1: 57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also 49Qxx, **37C10**, 93B05]
- 37C20:** 1: 34D30 Structural stability and analogous concepts [See also **37C20**]

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37C25:	1:	47H10	Fixed-point theorems [See also 37C25 , 54H25, 55M20, 58C30]
37C70:	1:	34D45	Attractors [See also 37C70 , 37D45]
37C75:	1:	34Dxx	Stability theory [See also 37C75 , 93Dxx]
37Cxx:	1:	26A18	Iteration [See also 37Bxx, 37Cxx , 37Exx, 39B12, 47H10, 54H25]
37Cxx:	2:	35B30	Dependence of solutions on initial and boundary data, parameters [See also 37Cxx]
37Cxx:	3:	37B10	Symbolic dynamics [See also 37Cxx , 37Dxx]
37Cxx:	4:	37H15	Multiplicative ergodic theory, Lyapunov exponents [See also 34D08, 37Axx, 37Cxx , 37Dxx]
37D45:	1:	34D45	Attractors [See also 37C70, 37D45]
37D45:	2:	70K55	Transition to stochasticity (chaotic behavior) [See also 37D45]
37Dxx:	1:	34C28	Complex behavior, chaotic systems [See also 37Dxx]
37Dxx:	2:	37B10	Symbolic dynamics [See also 37Cxx, 37Dxx]
37Dxx:	3:	37C40	Smooth ergodic theory, invariant measures [See also 37Dxx]
37Dxx:	4:	37H15	Multiplicative ergodic theory, Lyapunov exponents [See also 34D08, 37Axx, 37Cxx, 37Dxx]
37Dxx:	5:	81Q50	Quantum chaos [See also 37Dxx]
37Exx:	1:	26A18	Iteration [See also 37Bxx, 37Cxx, 37Exx , 39B12, 47H10, 54H25]
37F25:	1:	37E20	Universality, renormalization [See also 37F25]
37Fxx:	1:	28A80	Fractals [See also 37Fxx]
37Fxx:	2:	30D05	Functional equations in the complex domain, iteration and composition of analytic functions [See also 34Mxx, 37Fxx , 39-XX]
37Gxx:	1:	34C23	Bifurcation [See also 37Gxx]
37Gxx:	2:	35B32	Bifurcation [See also 37Gxx , 37K50]
37Gxx:	3:	37H20	Bifurcation theory [See also 37Gxx]
37Gxx:	4:	47J15	Abstract bifurcation theory [See also 34C23, 37Gxx , 58E07, 58E09]
37J35:	1:	81R12	Relations with integrable systems [See also 17Bxx, 37J35]
37Jxx:	1:	53Dxx	Symplectic geometry, contact geometry [See also 37Jxx , 70Gxx, 70Hxx]
37Jxx:	2:	70Hxx	Hamiltonian and Lagrangian mechanics [See also 37Jxx]
37K10:	1:	35Q53	KdV-like equations (Korteweg-de Vries) [See also 37K10]
37K10:	2:	35Q55	NLS-like equations (nonlinear Schrödinger) [See also 37K10]
37K15:	1:	47A40	Scattering theory [See also 34L25, 35P25, 37K15 , 58J50, 81Uxx]
37K40:	1:	35Q51	Soliton-like equations [See also 37K40]
37K50:	1:	35B32	Bifurcation [See also 37Gxx, 37K50]
37K60:	1:	37L60	Lattice dynamics [See also 37K60]
37K60:	2:	82C23	Exactly solvable dynamic models [See also 37K60]
37Kxx:	1:	34Gxx	Differential equations in abstract spaces [See also 34Lxx, 37Kxx , 47Dxx, 47Hxx, 47Jxx, 58D25]
37Kxx:	2:	46L55	Noncommutative dynamical systems [See also 28Dxx, 37Kxx , 37Lxx, 54H20]
37Kxx:	3:	47J35	Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx, 35R20, 37Kxx , 37Lxx, 47H20, 58D25]
37Kxx:	4:	70Sxx	Classical field theories [See also 37Kxx , 37Lxx, 78-XX, 81Txx, 83-XX]
37L05:	1:	47H20	Semigroups of nonlinear operators [See also 37L05 , 47J35, 54H15, 58D07]
37L60:	1:	37K60	Lattice dynamics [See also 37L60]
37Lxx:	1:	46L55	Noncommutative dynamical systems [See also 28Dxx, 37Kxx, 37Lxx , 54H20]
37Lxx:	2:	47J35	Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx, 35R20, 37Kxx, 37Lxx, 47H20, 58D25]
37Lxx:	3:	58D25	Equations in function spaces; evolution equations [See also 34Gxx, 35K90, 35L90, 35R15, 37Lxx , 47Jxx]
37Lxx:	4:	70Sxx	Classical field theories [See also 37Kxx, 37Lxx , 78-XX, 81Txx, 83-XX]
37Mxx:	1:	65Pxx	Numerical problems in dynamical systems [See also 37Mxx]
37P30:	1:	11G50	Heights [See also 14G40, 37P30]
37P30:	2:	14G40	Arithmetic varieties and schemes; Arakelov theory; heights [See also 11G50, 37P30]
37Pxx:	1:	11S82	Non-Archimedean dynamical systems [See mainly 37Pxx]
39-XX:	1:	30D05	Functional equations in the complex domain, iteration and composition of analytic functions [See also 34Mxx, 37Fxx, 39-XX]
39A70:	1:	47B39	Difference operators [See also 39A70]
39Axx:	1:	12H10	Difference algebra [See also 39Axx]
39B12:	1:	26A18	Iteration [See also 37Bxx, 37Cxx, 37Exx, 39B12 , 47H10, 54H25]
39B72:	1:	26Dxx	Inequalities { For maximal function inequalities, see 42B25; for functional inequalities, see 39B72 ; for probabilistic inequalities, see 60E15 }
40A15:	1:	11A55	Continued fractions { For approximation results, see 11J70 } [See also 11K50, 30B70,

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40A15]

- 40A15:** 2: 30B70 Continued fractions [See also 11A55, **40A15**]
- 40A35:** 1: 40G15 Summability methods using statistical convergence [See also **40A35**]
- 40E05:** 1: 11M45 Tauberian theorems [See also **40E05**]
- 40G15:** 1: 40A35 Ideal and statistical convergence [See also **40G15**]
- 40J05:** 1: 43A55 Summability methods on groups, semigroups, etc. [See also **40J05**]
- 41-XX:** 1: 65Dxx Numerical approximation and computational geometry (primarily algorithms) { For theory, see **41-XX** and 68Uxx }
- 41A25:** 1: 26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) { For properties determined by Fourier coefficients, see 42A16; for those determined by approximation properties, see **41A25**, 41A27 }
- 41A27:** 1: 26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) { For properties determined by Fourier coefficients, see 42A16; for those determined by approximation properties, see 41A25, **41A27** }
- 42-XX:** 1: 30B50 Dirichlet series and other series expansions, exponential series [See also 11M41, **42-XX**]
- 42-XX:** 2: 46F12 Integral transforms in distribution spaces [See also **42-XX**, 44-XX]
- 42A10:** 1: 41-XX Approximations and expansions { For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see **42A10** and 42A15; for numerical approximation, see 65Dxx }
- 42A10:** 2: 41A10 Approximation by polynomials { For approximation by trigonometric polynomials, see **42A10** }
- 42A15:** 1: 41-XX Approximations and expansions { For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see 42A10 and **42A15**; for numerical approximation, see 65Dxx }
- 42A15:** 2: 41A05 Interpolation [See also **42A15** and 65D05]
- 42A16:** 1: 26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) { For properties determined by Fourier coefficients, see **42A16**; for those determined by approximation properties, see 41A25, 41A27 }
- 42A38:** 1: 44-XX Integral transforms, operational calculus { For fractional derivatives and integrals, see 26A33. For Fourier transforms, see **42A38**, 42B10. For integral transforms in distribution spaces, see 46F12. For numerical methods, see 65R10 }
- 42A38:** 2: 44A05 General transforms [See also **42A38**]
- 42A70:** 1: 47A57 Operator methods in interpolation, moment and extension problems [See also 30E05, **42A70**, 42A82, 44A60]
- 42A82:** 1: 47A57 Operator methods in interpolation, moment and extension problems [See also 30E05, 42A70, **42A82**, 44A60]
- 42B10:** 1: 44-XX Integral transforms, operational calculus { For fractional derivatives and integrals, see 26A33. For Fourier transforms, see 42A38, **42B10**. For integral transforms in distribution spaces, see 46F12. For numerical methods, see 65R10 }
- 42B25:** 1: 26Dxx Inequalities { For maximal function inequalities, see **42B25**; for functional inequalities, see 39B72; for probabilistic inequalities, see 60E15 }
- 42B30:** 1: 32A35 H^p -spaces, Nevanlinna spaces [See also 32M15, **42B30**, 43A85, 46J15]
- 42B30:** 2: 46J15 Banach algebras of differentiable or analytic functions, H^p -spaces [See also 30H10, 32A35, 32A37, 32A38, **42B30**]
- 42C05:** 1: 33C45 Orthogonal polynomials and functions of hypergeometric type (Jacobi, Laguerre, Hermite, Askey scheme, etc.) [See also **42C05** for general orthogonal polynomials and functions]
- 42Cxx:** 1: 33-XX Special functions (33-XX deals with the properties of functions as functions) { For orthogonal functions, see **42Cxx**; for aspects of combinatorics see 05Axx; for number-theoretic aspects see 11-XX; for representation theory see 22Exx }
- 43-XX:** 1: 22-XX Topological groups, Lie groups { For transformation groups, see 54H15, 57Sxx, 58-XX. For abstract harmonic analysis, see **43-XX** }
- 43-XX:** 2: 22E30 Analysis on real and complex Lie groups [See also 33C80, **43-XX**]
- 43-XX:** 3: 32A50 Harmonic analysis of several complex variables [See mainly **43-XX**]
- 43A05:** 1: 28C10 Set functions and measures on topological groups or semigroups, Haar measures, invariant measures [See also 22Axx, **43A05**]
- 43A10:** 1: 46Hxx Topological algebras, normed rings and algebras, Banach algebras { For group algebras, convolution algebras and measure algebras, see **43A10**, 43A20 }
- 43A20:** 1: 46Hxx Topological algebras, normed rings and algebras, Banach algebras { For group algebras, convolution algebras and measure algebras, see 43A10, **43A20** }
- 43A55:** 1: 40Jxx Summability in abstract structures [See also **43A55**, 46A35, 46B15]
- 43A55:** 2: 40J05 Summability in abstract structures [See also **43A55**, 46A35, 46B15] (should also be

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assigned at least one other classification number in this section)

- 43A60:** 1: 42A75 Classical almost periodic functions, mean periodic functions [See also **43A60**]
- 43A80:** 1: 22Exx Lie groups { For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see **43A80**, 43A85, 43A90 }
- 43A85:** 1: 22Exx Lie groups { For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see 43A80, **43A85**, 43A90 }
- 43A85:** 2: 32A35 H^p -spaces, Nevanlinna spaces [See also 32M15, 42B30, **43A85**, 46J15]
- 43A90:** 1: 22Exx Lie groups { For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see 43A80, 43A85, **43A90** }
- 44-XX:** 1: 34A25 Analytical theory: series, transformations, transforms, operational calculus, etc. [See also **44-XX**]
- 44-XX:** 2: 46F12 Integral transforms in distribution spaces [See also 42-XX, **44-XX**]
- 44A12:** 1: 92C55 Biomedical imaging and signal processing [See also **44A12**, 65R10]
- 44A15:** 1: 45Exx Singular integral equations [See also 30E20, 30E25, **44A15**, 44A35]
- 44A15:** 2: 45Hxx Miscellaneous special kernels [See also **44A15**]
- 44A15:** 3: 45H05 Miscellaneous special kernels [See also **44A15**]
- 44A35:** 1: 45Exx Singular integral equations [See also 30E20, 30E25, 44A15, **44A35**]
- 44A60:** 1: 47A57 Operator methods in interpolation, moment and extension problems [See also 30E05, 42A70, 42A82, **44A60**]
- 45Exx:** 1: 30E20 Integration, integrals of Cauchy type, integral representations of analytic functions [See also **45Exx**]
- 45Exx:** 2: 30E25 Boundary value problems [See also **45Exx**]
- 45Gxx:** 1: 47H30 Particular nonlinear operators (superposition, Hammerstein, Nemytskii, Uryson, etc.) [See also **45Gxx**, 45P05]
- 45Jxx:** 1: 47G20 Integro-differential operators [See also 34K30, 35R09, 35R10, **45Jxx**, 45Kxx]
- 45Kxx:** 1: 35R09 Integro-partial differential equations [See also **45Kxx**]
- 45Kxx:** 2: 47G20 Integro-differential operators [See also 34K30, 35R09, 35R10, 45Jxx, **45Kxx**]
- 45P05:** 1: 45Cxx Eigenvalue problems [See also 34Lxx, 35Pxx, **45P05**, 47A75]
- 45P05:** 2: 45C05 Eigenvalue problems [See also 34Lxx, 35Pxx, **45P05**, 47A75]
- 45P05:** 3: 47B35 Toeplitz operators, Hankel operators, Wiener-Hopf operators [See also **45P05**, 47G10 for other integral operators; see also 32A25, 32M15]
- 45P05:** 4: 47G10 Integral operators [See also **45P05**]
- 45P05:** 5: 47H30 Particular nonlinear operators (superposition, Hammerstein, Nemytskii, Uryson, etc.) [See also 45Gxx, **45P05**]
- 46-XX:** 1: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, 32Fxx, 32Wxx, **46-XX**, 47Hxx, 53Cxx] { For geometric integration theory, see 49Q15 }
- 46A13:** 1: 46M40 Inductive and projective limits [See also **46A13**]
- 46A22:** 1: 39B82 Stability, separation, extension, and related topics [See also **46A22**]
- 46A22:** 2: 46M10 Projective and injective objects [See also **46A22**]
- 46A25:** 1: 46B10 Duality and reflexivity [See also **46A25**]
- 46A32:** 1: 46B28 Spaces of operators; tensor products; approximation properties [See also **46A32**, 46M05, 47L05, 47L20]
- 46A32:** 2: 46M05 Tensor products [See also **46A32**, 46B28, 47A80]
- 46A32:** 3: 47L05 Linear spaces of operators [See also **46A32** and 46B28]
- 46A35:** 1: 40Jxx Summability in abstract structures [See also 43A55, **46A35**, 46B15]
- 46A35:** 2: 40J05 Summability in abstract structures [See also 43A55, **46A35**, 46B15] (should also be assigned at least one other classification number in this section)
- 46A35:** 3: 46B15 Summability and bases [See also **46A35**]
- 46A40:** 1: 06F20 Ordered abelian groups, Riesz groups, ordered linear spaces [See also **46A40**]
- 46A40:** 2: 46B40 Ordered normed spaces [See also **46A40**, 46B42]
- 46A40:** 3: 46B42 Banach lattices [See also **46A40**, 46B40]
- 46A45:** 1: 46B45 Banach sequence spaces [See also **46A45**]
- 46A55:** 1: 47L07 Convex sets and cones of operators [See also **46A55**]
- 46A55:** 2: 52A07 Convex sets in topological vector spaces [See also **46A55**]
- 46B06:** 1: 52A23 Asymptotic theory of convex bodies [See also **46B06**]
- 46B08:** 1: 46M07 Ultraproducts [See also **46B08**, 46S20]
- 46B10:** 1: 46A25 Reflexivity and semi-reflexivity [See also **46B10**]
- 46B15:** 1: 40Jxx Summability in abstract structures [See also 43A55, 46A35, **46B15**]
- 46B15:** 2: 40J05 Summability in abstract structures [See also 43A55, 46A35, **46B15**] (should also be assigned at least one other classification number in this section)
- 46B15:** 3: 46A35 Summability and bases [See also **46B15**]

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- 46B22:** 1: 46G10 Vector-valued measures and integration [See also 28Bxx, **46B22**]
- 46B28:** 1: 46A32 Spaces of linear operators; topological tensor products; approximation properties [See also **46B28**, 46M05, 47L05, 47L20]
- 46B28:** 2: 46M05 Tensor products [See also 46A32, **46B28**, 47A80]
- 46B28:** 3: 47L05 Linear spaces of operators [See also 46A32 and **46B28**]
- 46B40:** 1: 46A40 Ordered topological linear spaces, vector lattices [See also 06F20, **46B40**, 46B42]
- 46B40:** 2: 46B42 Banach lattices [See also 46A40, **46B40**]
- 46B42:** 1: 46A40 Ordered topological linear spaces, vector lattices [See also 06F20, 46B40, **46B42**]
- 46B42:** 2: 46B40 Ordered normed spaces [See also 46A40, **46B42**]
- 46B45:** 1: 46A45 Sequence spaces (including Köthe sequence spaces) [See also **46B45**]
- 46B70:** 1: 46C07 Hilbert subspaces (= operator ranges); complementation (Aronszajn, de Branges, etc.) [See also **46B70**, 46M35]
- 46B70:** 2: 46M35 Abstract interpolation of topological vector spaces [See also **46B70**]
- 46Bxx:** 1: 52A21 Finite-dimensional Banach spaces (including special norms, zonoids, etc.) [See also **46Bxx**]
- 46C50:** 1: 47B50 Operators on spaces with an indefinite metric [See also **46C50**]
- 46E10:** 1: 46F05 Topological linear spaces of test functions, distributions and ultradistributions [See also **46E10**, 46E35]
- 46E22:** 1: 47B32 Operators in reproducing-kernel Hilbert spaces (including de Branges, de Branges-Rovnyak, and other structured spaces) [See also **46E22**]
- 46E25:** 1: 46Jxx Commutative Banach algebras and commutative topological algebras [See also **46E25**]
- 46E25:** 2: 46J10 Banach algebras of continuous functions, function algebras [See also **46E25**]
- 46E27:** 1: 28A33 Spaces of measures, convergence of measures [See also **46E27**, 60Bxx]
- 46E35:** 1: 46F05 Topological linear spaces of test functions, distributions and ultradistributions [See also **46E10**, **46E35**]
- 46E40:** 1: 26E20 Calculus of functions taking values in infinite-dimensional spaces [See also **46E40**, 46G10, 58Cxx]
- 46E50:** 1: 46G20 Infinite-dimensional holomorphy [See also 32-XX, **46E50**, 46T25, 58B12, 58C10]
- 46E50:** 2: 46G25 (Spaces of) multilinear mappings, polynomials [See also **46E50**, 46G20, 47H60]
- 46Exx:** 1: 32A37 Other spaces of holomorphic functions (e.g. bounded mean oscillation (BMOA), vanishing mean oscillation (VMOA)) [See also **46Exx**]
- 46Exx:** 2: 32A70 Functional analysis techniques [See mainly **46Exx**]
- 46Exx:** 3: 46Axx Topological linear spaces and related structures { For function spaces, see **46Exx** }
- 46Exx:** 4: 46Bxx Normed linear spaces and Banach spaces; Banach lattices { For function spaces, see **46Exx** }
- 46Exx:** 5: 46Cxx Inner product spaces and their generalizations, Hilbert spaces { For function spaces, see **46Exx** }
- 46Exx:** 6: 54C35 Function spaces [See also **46Exx**, 58D15]
- 46Exx:** 7: 58Dxx Spaces and manifolds of mappings (including nonlinear versions of **46Exx**) [See also 46Txx, 53Cxx]
- 46F05:** 1: 46Exx Linear function spaces and their duals [See also 30H05, 32A38, **46F05**] { For function algebras, see 46J10 }
- 46F12:** 1: 44-XX Integral transforms, operational calculus { For fractional derivatives and integrals, see 26A33. For Fourier transforms, see 42A38, 42B10. For integral transforms in distribution spaces, see **46F12**. For numerical methods, see 65R10 }
- 46F15:** 1: 32A45 Hyperfunctions [See also **46F15**]
- 46Fxx:** 1: 46T30 Distributions and generalized functions on nonlinear spaces [See also **46Fxx**]
- 46G05:** 1: 26E15 Calculus of functions on infinite-dimensional spaces [See also **46G05**, 58Cxx]
- 46G05:** 2: 46T20 Continuous and differentiable maps [See also **46G05**]
- 46G05:** 3: 49J50 Fréchet and Gateaux differentiability [See also **46G05**, 58C20]
- 46G05:** 4: 49J52 Nonsmooth analysis [See also **46G05**, 58C50, 90C56]
- 46G05:** 5: 58C20 Differentiation theory (Gateaux, Fréchet, etc.) [See also 26Exx, **46G05**]
- 46G10:** 1: 26E20 Calculus of functions taking values in infinite-dimensional spaces [See also 46E40, **46G10**, 58Cxx]
- 46G10:** 2: 28B05 Vector-valued set functions, measures and integrals [See also **46G10**]
- 46G10:** 3: 46B22 Radon-Nikodým, Kreĭn-Milman and related properties [See also **46G10**]
- 46G12:** 1: 28Cxx Set functions and measures on spaces with additional structure [See also **46G12**, 58C35, 58D20]
- 46G12:** 2: 28C20 Set functions and measures and integrals in infinite-dimensional spaces (Wiener measure, Gaussian measure, etc.) [See also **46G12**, 58C35, 58D20, 60B11]
- 46G12:** 3: 46T12 Measure (Gaussian, cylindrical, etc.) and integrals (Feynman, path, Fresnel, etc.) on

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- manifolds [See also 28Cxx, **46G12**, 60-XX]
- 46G15:** 1: 28A51 Lifting theory [See also **46G15**]
- 46G20:** 1: 32-XX Several complex variables and analytic spaces { For infinite-dimensional holomorphy, see **46G20**, 58B12 }
- 46G20:** 2: 46E50 Spaces of differentiable or holomorphic functions on infinite-dimensional spaces [See also **46G20**, 46G25, 47H60]
- 46G20:** 3: 46G25 (Spaces of) multilinear mappings, polynomials [See also 46E50, **46G20**, 47H60]
- 46G20:** 4: 46T25 Holomorphic maps [See also **46G20**]
- 46G20:** 5: 58B12 Questions of holomorphy [See also 32-XX, **46G20**]
- 46G25:** 1: 46E50 Spaces of differentiable or holomorphic functions on infinite-dimensional spaces [See also **46G20**, **46G25**, 47H60]
- 46G25:** 2: 47H60 Multilinear and polynomial operators [See also **46G25**]
- 46Gxx:** 1: 35R15 Partial differential equations on infinite-dimensional (e.g. function) spaces (= PDE in infinitely many variables) [See also **46Gxx**, 58D25]
- 46Gxx:** 2: 46E27 Spaces of measures [See also 28A33, **46Gxx**]
- 46H70:** 1: 17C65 Jordan structures on Banach spaces and algebras [See also **46H70**, 46L70]
- 46H70:** 2: 46K70 Nonassociative topological algebras with an involution [See also **46H70**, 46L70]
- 46H70:** 3: 46L70 Nonassociative selfadjoint operator algebras [See also **46H70**, 46K70]
- 46J10:** 1: 32A38 Algebras of holomorphic functions [See also 30H05, **46J10**, 46J15]
- 46J10:** 2: 46Exx Linear function spaces and their duals [See also 30H05, 32A38, 46F05] { For function algebras, see **46J10** }
- 46J10:** 3: 46E25 Rings and algebras of continuous, differentiable or analytic functions { For Banach function algebras, see **46J10**, 46J15 }
- 46J10:** 4: 54C40 Algebraic properties of function spaces [See also **46J10**]
- 46J15:** 1: 32A35 H^p -spaces, Nevanlinna spaces [See also 32M15, 42B30, 43A85, **46J15**]
- 46J15:** 2: 32A38 Algebras of holomorphic functions [See also 30H05, 46J10, **46J15**]
- 46J15:** 3: 46E25 Rings and algebras of continuous, differentiable or analytic functions { For Banach function algebras, see 46J10, **46J15** }
- 46Jxx:** 1: 32A65 Banach algebra techniques [See mainly **46Jxx**]
- 46K70:** 1: 46H70 Nonassociative topological algebras [See also **46K70**, 46L70]
- 46K70:** 2: 46L70 Nonassociative selfadjoint operator algebras [See also 46H70, **46K70**]
- 46Kxx:** 1: 16W10 Rings with involution; Lie, Jordan and other nonassociative structures [See also 17B60, 17C50, **46Kxx**]
- 46L05:** 1: 58J22 Exotic index theories [See also 19K56, **46L05**, 46L10, 46L80, 46M20]
- 46L07:** 1: 47L25 Operator spaces (= matricially normed spaces) [See also **46L07**]
- 46L10:** 1: 58J22 Exotic index theories [See also 19K56, 46L05, **46L10**, 46L80, 46M20]
- 46L55:** 1: 37A55 Relations with the theory of C^* -algebras [See mainly **46L55**]
- 46L70:** 1: 17C65 Jordan structures on Banach spaces and algebras [See also 46H70, **46L70**]
- 46L70:** 2: 46H70 Nonassociative topological algebras [See also 46K70, **46L70**]
- 46L70:** 3: 46K70 Nonassociative topological algebras with an involution [See also 46H70, **46L70**]
- 46L80:** 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, **46L80**, 57R65, 57R67]
- 46L80:** 2: 18G60 Other (co)homology theories [See also 19D55, **46L80**, 58J20, 58J22]
- 46L80:** 3: 19Kxx K -theory and operator algebras [See mainly **46L80**, and also 46M20]
- 46L80:** 4: 46M15 Categories, functors { For K -theory, EXT, etc., see 19K33, **46L80**, 46M18, 46M20 }
- 46L80:** 5: 46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, 32Cxx, 32Lxx, **46L80**, 46M15, 46M18, 55Rxx]
- 46L80:** 6: 58J20 Index theory and related fixed point theorems [See also 19K56, **46L80**]
- 46L80:** 7: 58J22 Exotic index theories [See also 19K56, 46L05, 46L10, **46L80**, 46M20]
- 46L85:** 1: 81T75 Noncommutative geometry methods [See also **46L85**, 46L87, 58B34]
- 46L87:** 1: 81T75 Noncommutative geometry methods [See also 46L85, **46L87**, 58B34]
- 46Lxx:** 1: 22D25 C^* -algebras and W^* -algebras in relation to group representations [See also **46Lxx**]
- 46Lxx:** 2: 37-XX Dynamical systems and ergodic theory [See also 26A18, 28Dxx, 34Cxx, 34Dxx, 35Bxx, **46Lxx**, 58Jxx, 70-XX]
- 46Lxx:** 3: 47Lxx Linear spaces and algebras of operators [See also **46Lxx**]
- 46Lxx:** 4: 81R15 Operator algebra methods [See also **46Lxx**, 81T05]
- 46M05:** 1: 46A32 Spaces of linear operators; topological tensor products; approximation properties [See also 46B28, **46M05**, 47L05, 47L20]
- 46M05:** 2: 46B28 Spaces of operators; tensor products; approximation properties [See also 46A32, **46M05**, 47L05, 47L20]
- 46M05:** 3: 47A80 Tensor products of operators [See also **46M05**]

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- 46M07:** 1: 46B08 Ultraproduct techniques in Banach space theory [See also **46M07**]
- 46M10:** 1: 46A22 Theorems of Hahn-Banach type; extension and lifting of functionals and operators [See also **46M10**]
- 46M15:** 1: 46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, 32Cxx, 32Lxx, 46L80, **46M15**, 46M18, 55Rxx]
- 46M18:** 1: 46M15 Categories, functors { For K -theory, EXT, etc., see 19K33, 46L80, **46M18**, 46M20 }
- 46M18:** 2: 46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, 32Cxx, 32Lxx, 46L80, 46M15, **46M18**, 55Rxx]
- 46M20:** 1: 14F05 Sheaves, derived categories of sheaves and related constructions [See also 14H60, 14J60, 18F20, 32Lxx, **46M20**]
- 46M20:** 2: 19Kxx K -theory and operator algebras [See mainly 46L80, and also **46M20**]
- 46M20:** 3: 46L80 K -theory and operator algebras (including cyclic theory) [See also 18F25, 19Kxx, **46M20**, 55Rxx, 58J22]
- 46M20:** 4: 46M15 Categories, functors { For K -theory, EXT, etc., see 19K33, 46L80, 46M18, **46M20** }
- 46M20:** 5: 55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, **46M20**, 57R20, 57R22, 57R25]
- 46M20:** 6: 58J22 Exotic index theories [See also 19K56, 46L05, 46L10, 46L80, **46M20**]
- 46M35:** 1: 46B70 Interpolation between normed linear spaces [See also **46M35**]
- 46M35:** 2: 46C07 Hilbert subspaces (= operator ranges); complementation (Aronszajn, de Branges, etc.) [See also 46B70, **46M35**]
- 46M40:** 1: 46A13 Spaces defined by inductive or projective limits (LB, LF, etc.) [See also **46M40**]
- 46Mxx:** 1: 43A95 Categorical methods [See also **46Mxx**]
- 46N50:** 1: 46L60 Applications of selfadjoint operator algebras to physics [See also **46N50**, 46N55, 47L90, 81T05, 82B10, 82C10]
- 46N55:** 1: 46L60 Applications of selfadjoint operator algebras to physics [See also 46N50, **46N55**, 47L90, 81T05, 82B10, 82C10]
- 46Nxx:** 1: 47Nxx Miscellaneous applications of operator theory [See also **46Nxx**]
- 46S10:** 1: 12J25 Non-Archimedean valued fields [See also 30G06, 32P05, **46S10**, 47S10]
- 46S10:** 2: 12J27 Krasner-Tate algebras [See mainly 32P05; see also **46S10**, 47S10]
- 46S20:** 1: 03H05 Nonstandard models in mathematics [See also 26E35, 28E05, 30G06, **46S20**, 47S20, 54J05]
- 46S20:** 2: 46M07 Ultraproducts [See also 46B08, **46S20**]
- 46S30:** 1: 03F60 Constructive and recursive analysis [See also 03B30, 03D45, 03D78, 26E40, **46S30**, 47S30]
- 46Sxx:** 1: 47Sxx Other (nonclassical) types of operator theory [See also **46Sxx**]
- 46T10:** 1: 58D15 Manifolds of mappings [See also **46T10**, 54C35]
- 46T12:** 1: 46G12 Measures and integration on abstract linear spaces [See also 28C20, **46T12**]
- 46T12:** 2: 58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps [See also 28Cxx, **46T12**]
- 46T20:** 1: 46G05 Derivatives [See also **46T20**, 58C20, 58C25]
- 46T20:** 2: 47J07 Abstract inverse mapping and implicit function theorems [See also **46T20** and 58C15]
- 46T25:** 1: 46G20 Infinite-dimensional holomorphy [See also 32-XX, 46E50, **46T25**, 58B12, 58C10]
- 46T30:** 1: 46Fxx Distributions, generalized functions, distribution spaces [See also **46T30**]
- 46Txx:** 1: 46Gxx Measures, integration, derivative, holomorphy (all involving infinite-dimensional spaces) [See also 28-XX, **46Txx**]
- 46Txx:** 2: 47Jxx Equations and inequalities involving nonlinear operators [See also **46Txx**] { For global and geometric aspects, see 58-XX }
- 46Txx:** 3: 58Cxx Calculus on manifolds; nonlinear operators [See also **46Txx**, 47Hxx, 47Jxx]
- 46Txx:** 4: 58Dxx Spaces and manifolds of mappings (including nonlinear versions of 46Exx) [See also **46Txx**, 53Cxx]
- 47A35:** 1: 28Dxx Measure-theoretic ergodic theory [See also 11K50, 11K55, 22D40, 37Axx, **47A35**, 54H20, 60Fxx, 60G10]
- 47A35:** 2: 37A30 Ergodic theorems, spectral theory, Markov operators { For operator ergodic theory, see mainly **47A35** }
- 47A35:** 3: 47H25 Nonlinear ergodic theorems [See also 28Dxx, 37Axx, **47A35**]
- 47A40:** 1: 35P25 Scattering theory [See also **47A40**]
- 47A40:** 2: 81Uxx Scattering theory [See also 34A55, 34L25, 34L40, 35P25, **47A40**]
- 47A46:** 1: 47A15 Invariant subspaces [See also **47A46**]
- 47A48:** 1: 93B28 Operator-theoretic methods [See also **47A48**, 47A57, 47B35, 47N70]
- 47A50:** 1: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, **47A50**, 47D03, 47D06, 47D09, 47H20, 47Jxx]
- 47A52:** 1: 47J06 Nonlinear ill-posed problems [See also 35R25, **47A52**, 65F22, 65J20, 65L08, 65M30, 65R30]

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- 47A53:** 1: 58B15 Fredholm structures [See also **47A53**]
47A55: 1: 47H14 Perturbations of nonlinear operators [See also **47A55**, 58J37, 70H09, 70K60, 81Q15]
47A56: 1: 15A22 Matrix pencils [See also **47A56**]
47A57: 1: 93B28 Operator-theoretic methods [See also 47A48, **47A57**, 47B35, 47N70]
47A60: 1: 46H30 Functional calculus in topological algebras [See also **47A60**]
47A64: 1: 26E60 Means [See also **47A64**]
47A75: 1: 45Cxx Eigenvalue problems [See also 34Lxx, 35Pxx, 45P05, **47A75**]
47A75: 2: 45C05 Eigenvalue problems [See also 34Lxx, 35Pxx, 45P05, **47A75**]
47A75: 3: 49Rxx Variational methods for eigenvalues of operators [See also **47A75**] (should also be assigned at least one other classification number in this section)
47A75: 4: 49R05 Variational methods for eigenvalues of operators [See also **47A75**] (should also be assigned at least one other classification number in section 49)
47A80: 1: 46M05 Tensor products [See also 46A32, 46B28, **47A80**]
47Axx: 1: 35Pxx Spectral theory and eigenvalue problems [See also **47Axx**, 47Bxx, 47F05]
47B10: 1: 47L20 Operator ideals [See also **47B10**]
47B32: 1: 46E22 Hilbert spaces with reproducing kernels (= [proper] functional Hilbert spaces, including de Branges-Rovnyak and other structured spaces) [See also **47B32**]
47B35: 1: 45E10 Integral equations of the convolution type (Abel, Picard, Toeplitz and Wiener-Hopf type) [See also **47B35**]
47B35: 2: 93B28 Operator-theoretic methods [See also 47A48, 47A57, **47B35**, 47N70]
47B38: 1: 45Pxx Integral operators [See also **47B38**, 47G10]
47B38: 2: 45P05 Integral operators [See also **47B38**, 47G10]
47B39: 1: 39A70 Difference operators [See also **47B39**]
47B50: 1: 46C20 Spaces with indefinite inner product (Kreĭn spaces, Pontryagin spaces, etc.) [See also **47B50**]
47B80: 1: 37Hxx Random dynamical systems [See also 15B52, 34D08, 34F05, **47B80**, 70L05, 82C05, 93Exx]
47B80: 2: 47H40 Random operators [See also **47B80**, 60H25]
47B80: 3: 60H25 Random operators and equations [See also **47B80**]
47Bxx: 1: 35Pxx Spectral theory and eigenvalue problems [See also 47Axx, **47Bxx**, 47F05]
47D03: 1: 20M20 Semigroups of transformations, etc. [See also **47D03**, 47H20, 54H15]
47D03: 2: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, 47A50, **47D03**, 47D06, 47D09, 47H20, 47Jxx]
47D03: 3: 60J35 Transition functions, generators and resolvents [See also **47D03**, 47D07]
47D06: 1: 34G10 Linear equations [See also **47D06**, 47D09]
47D06: 2: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, 47A50, 47D03, **47D06**, 47D09, 47H20, 47Jxx]
47D07: 1: 60J35 Transition functions, generators and resolvents [See also 47D03, **47D07**]
47D09: 1: 34G10 Linear equations [See also 47D06, **47D09**]
47D09: 2: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, 47A50, 47D03, 47D06, **47D09**, 47H20, 47Jxx]
47Dxx: 1: 34Gxx Differential equations in abstract spaces [See also 34Lxx, 37Kxx, **47Dxx**, 47Hxx, 47Jxx, 58D25]
47E05: 1: 34Lxx Ordinary differential operators [See also **47E05**]
47F05: 1: 35Pxx Spectral theory and eigenvalue problems [See also 47Axx, 47Bxx, **47F05**]
47G10: 1: 45Pxx Integral operators [See also 47B38, **47G10**]
47G10: 2: 45P05 Integral operators [See also 47B38, **47G10**]
47G10: 3: 47B35 Toeplitz operators, Hankel operators, Wiener-Hopf operators [See also 45P05, **47G10** for other integral operators; see also 32A25, 32M15]
47G20: 1: 45Jxx Integro-ordinary differential equations [See also 34K05, 34K30, **47G20**]
47G20: 2: 45J05 Integro-ordinary differential equations [See also 34K05, 34K30, **47G20**]
47G20: 3: 45Kxx Integro-partial differential equations [See also 34K30, 35R09, 35R10, **47G20**]
47G20: 4: 45K05 Integro-partial differential equations [See also 34K30, 35R09, 35R10, **47G20**]
47G30: 1: 35Sxx Pseudodifferential operators and other generalizations of partial differential operators [See also **47G30**, 58J40]
47H04: 1: 49J53 Set-valued and variational analysis [See also 28B20, **47H04**, 54C60, 58C06]
47H04: 2: 54C60 Set-valued maps [See also 26E25, 28B20, **47H04**, 58C06]
47H04: 3: 58C06 Set valued and function-space valued mappings [See also **47H04**, 54C60]
47H10: 1: 26A18 Iteration [See also 37Bxx, 37Cxx, 37Exx, 39B12, **47H10**, 54H25]
47H10: 2: 47J05 Equations involving nonlinear operators (general) [See also **47H10**, 47J25]
47H10: 3: 54H25 Fixed-point and coincidence theorems [See also **47H10**, 55M20]

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- 47H10:** 4: 58C30 Fixed point theorems on manifolds [See also **47H10**]
47H14: 1: 47A55 Perturbation theory [See also **47H14**, 58J37, 70H09, 81Q15]
47H20: 1: 20M20 Semigroups of transformations, etc. [See also 47D03, **47H20**, 54H15]
47H20: 2: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, 47A50, 47D03, 47D06, 47D09, **47H20**, 47Jxx]
47H20: 3: 47D03 Groups and semigroups of linear operators { For nonlinear operators, see **47H20**; see also 20M20 }
47H20: 4: 47J35 Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx, 35R20, 37Kxx, 37Lxx, **47H20**, 58D25]
47H20: 5: 58D07 Groups and semigroups of nonlinear operators [See also 17B65, **47H20**]
47H30: 1: 45Gxx Nonlinear integral equations [See also **47H30**, 47Jxx]
47H40: 1: 47B80 Random operators [See also **47H40**, 60H25]
47H60: 1: 46E50 Spaces of differentiable or holomorphic functions on infinite-dimensional spaces [See also 46G20, 46G25, **47H60**]
47H60: 2: 46G25 (Spaces of) multilinear mappings, polynomials [See also 46E50, 46G20, **47H60**]
47Hxx: 1: 34Gxx Differential equations in abstract spaces [See also 34Lxx, 37Kxx, 47Dxx, **47Hxx**, 47Jxx, 58D25]
47Hxx: 2: 34G20 Nonlinear equations [See also **47Hxx**, 47Jxx]
47Hxx: 3: 46Txx Nonlinear functional analysis [See also **47Hxx**, 47Jxx, 58Cxx, 58Dxx]
47Hxx: 4: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, 32Fxx, 32Wxx, 46-XX, **47Hxx**, 53Cxx] { For geometric integration theory, see 49Q15 }
47Hxx: 5: 58Cxx Calculus on manifolds; nonlinear operators [See also 46Txx, **47Hxx**, 47Jxx]
47Hxx: 6: 65H17 Eigenvalues, eigenvectors [See also **47Hxx**, 47Jxx, 58C40, 58E07, 90C30]
47J06: 1: 47A52 Ill-posed problems, regularization [See also 35R25, **47J06**, 65F22, 65J20, 65L08, 65M30, 65R30]
47J10: 1: 47A75 Eigenvalue problems [See also **47J10**, 49R05]
47J10: 2: 58C40 Spectral theory; eigenvalue problems [See also **47J10**, 58E07]
47J20: 1: 49J40 Variational methods including variational inequalities [See also **47J20**]
47J25: 1: 47J05 Equations involving nonlinear operators (general) [See also 47H10, **47J25**]
47J35: 1: 47H20 Semigroups of nonlinear operators [See also 37L05, **47J35**, 54H15, 58D07]
47Jxx: 1: 34Gxx Differential equations in abstract spaces [See also 34Lxx, 37Kxx, 47Dxx, 47Hxx, **47Jxx**, 58D25]
47Jxx: 2: 34G20 Nonlinear equations [See also 47Hxx, **47Jxx**]
47Jxx: 3: 34K30 Equations in abstract spaces [See also 34Gxx, 35R09, 35R10, **47Jxx**]
47Jxx: 4: 35R20 Partial operator-differential equations (i.e., PDE on finite-dimensional spaces for abstract space valued functions) [See also 34Gxx, 47A50, 47D03, 47D06, 47D09, 47H20, **47Jxx**]
47Jxx: 5: 39B42 Matrix and operator equations [See also **47Jxx**]
47Jxx: 6: 45Gxx Nonlinear integral equations [See also 47H30, **47Jxx**]
47Jxx: 7: 46Txx Nonlinear functional analysis [See also 47Hxx, **47Jxx**, 58Cxx, 58Dxx]
47Jxx: 8: 58Cxx Calculus on manifolds; nonlinear operators [See also 46Txx, 47Hxx, **47Jxx**]
47Jxx: 9: 58D25 Equations in function spaces; evolution equations [See also 34Gxx, 35K90, 35L90, 35R15, 37Lxx, **47Jxx**]
47Jxx: 10: 65H17 Eigenvalues, eigenvectors [See also 47Hxx, **47Jxx**, 58C40, 58E07, 90C30]
47L05: 1: 46A32 Spaces of linear operators; topological tensor products; approximation properties [See also 46B28, 46M05, **47L05**, 47L20]
47L05: 2: 46B28 Spaces of operators; tensor products; approximation properties [See also 46A32, 46M05, **47L05**, 47L20]
47L20: 1: 46A32 Spaces of linear operators; topological tensor products; approximation properties [See also 46B28, 46M05, 47L05, **47L20**]
47L20: 2: 46B28 Spaces of operators; tensor products; approximation properties [See also 46A32, 46M05, 47L05, **47L20**]
47L20: 3: 47B10 Operators belonging to operator ideals (nuclear, p -summing, in the Schatten-von Neumann classes, etc.) [See also **47L20**]
47L25: 1: 46L07 Operator spaces and completely bounded maps [See also **47L25**]
47L90: 1: 46L60 Applications of selfadjoint operator algebras to physics [See also 46N50, 46N55, **47L90**, 81T05, 82B10, 82C10]
47Lxx: 1: 46H35 Topological algebras of operators [See mainly **47Lxx**]
47Lxx: 2: 46Lxx Selfadjoint operator algebras (C^* -algebras, von Neumann (W^* -) algebras, etc.) [See also 22D25, **47Lxx**]
47N70: 1: 93B28 Operator-theoretic methods [See also 47A48, 47A57, 47B35, **47N70**]
47Nxx: 1: 46Nxx Miscellaneous applications of functional analysis [See also **47Nxx**]

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47S10:	1:	12J25	Non-Archimedean valued fields [See also 30G06, 32P05, 46S10, 47S10]
47S10:	2:	12J27	Krasner-Tate algebras [See mainly 32P05; see also 46S10, 47S10]
47S20:	1:	03H05	Nonstandard models in mathematics [See also 26E35, 28E05, 30G06, 46S20, 47S20 , 54J05]
47S30:	1:	03F60	Constructive and recursive analysis [See also 03B30, 03D45, 03D78, 26E40, 46S30, 47S30]
47Sxx:	1:	46Sxx	Other (nonclassical) types of functional analysis [See also 47Sxx]
49-XX:	1:	58E25	Applications to control theory [See also 49-XX , 93-XX]
49-XX:	2:	93-XX	Systems theory; control { For optimal control, see 49-XX }
49J15:	1:	34Hxx	Control problems [See also 49J15 , 49K15, 93C15]
49J15:	2:	34H05	Control problems [See also 49J15 , 49K15, 93C15]
49J21:	1:	34A60	Differential inclusions [See also 49J21 , 49K21]
49J21:	2:	34K35	Control problems [See also 49J21 , 49K21, 93C23]
49J21:	3:	47J22	Variational and other types of inclusions [See also 34A60, 49J21 , 49K21]
49J40:	1:	35J86	Linear elliptic unilateral problems and linear elliptic variational inequalities [See also 35R35, 49J40]
49J40:	2:	35J87	Nonlinear elliptic unilateral problems and nonlinear elliptic variational inequalities [See also 35R35, 49J40]
49J40:	3:	35J88	Systems of elliptic variational inequalities [See also 35R35, 49J40]
49J40:	4:	35K85	Linear parabolic unilateral problems and linear parabolic variational inequalities [See also 35R35, 49J40]
49J40:	5:	35K86	Nonlinear parabolic unilateral problems and nonlinear parabolic variational inequalities [See also 35R35, 49J40]
49J40:	6:	35K87	Systems of parabolic variational inequalities [See also 35R35, 49J40]
49J40:	7:	35L85	Linear hyperbolic unilateral problems and linear hyperbolic variational inequalities [See also 35R35, 49J40]
49J40:	8:	35L86	Nonlinear hyperbolic unilateral problems and nonlinear hyperbolic variational inequalities [See also 35R35, 49J40]
49J40:	9:	35L87	Unilateral problems and variational inequalities for hyperbolic systems [See also 35R35, 49J40]
49J40:	10:	35M85	Linear unilateral problems and variational inequalities of mixed type [See also 35R35, 49J40]
49J40:	11:	35M86	Nonlinear unilateral problems and nonlinear variational inequalities of mixed type [See also 35R35, 49J40]
49J40:	12:	35M87	Systems of variational inequalities of mixed type [See also 35R35, 49J40]
49J40:	13:	47J20	Variational and other types of inequalities involving nonlinear operators (general) [See also 49J40]
49J52:	1:	26E25	Set-valued functions [See also 28B20, 54C60] { For nonsmooth analysis, see 49J52 , 58Cxx, 90Cxx }
49J52:	2:	90C56	Derivative-free methods and methods using generalized derivatives [See also 49J52]
49K15:	1:	34Hxx	Control problems [See also 49J15, 49K15 , 93C15]
49K15:	2:	34H05	Control problems [See also 49J15, 49K15 , 93C15]
49K21:	1:	34A60	Differential inclusions [See also 49J21, 49K21]
49K21:	2:	34K35	Control problems [See also 49J21, 49K21 , 93C23]
49K21:	3:	47J22	Variational and other types of inclusions [See also 34A60, 49J21, 49K21]
49K35:	1:	90C47	Minimax problems [See also 49K35]
49L20:	1:	90C39	Dynamic programming [See also 49L20]
49Mxx:	1:	65K10	Optimization and variational techniques [See also 49Mxx , 93B40]
49Mxx:	2:	90Cxx	Mathematical programming [See also 49Mxx , 65Kxx]
49N15:	1:	90C46	Optimality conditions, duality [See also 49N15]
49N70:	1:	91A23	Differential games [See also 49N70]
49N75:	1:	91A24	Positional games (pursuit and evasion, etc.) [See also 49N75]
49Q05:	1:	53A10	Minimal surfaces, surfaces with prescribed mean curvature [See also 49Q05 , 49Q10, 53C42]
49Q05:	2:	53C42	Immersions (minimal, prescribed curvature, tight, etc.) [See also 49Q05 , 49Q10, 53A10, 57R40, 57R42]
49Q05:	3:	58E12	Applications to minimal surfaces (problems in two independent variables) [See also 49Q05]
49Q10:	1:	53A10	Minimal surfaces, surfaces with prescribed mean curvature [See also 49Q05, 49Q10 , 53C42]
49Q10:	2:	53C42	Immersions (minimal, prescribed curvature, tight, etc.) [See also 49Q05, 49Q10 , 53A10,

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- 57R40, 57R42]
- 49Q10:** 3: 76B75 Flow control and optimization [See also **49Q10**, 93C20, 93C95]
- 49Q10:** 4: 76D55 Flow control and optimization [See also **49Q10**, 93C20, 93C95]
- 49Q15:** 1: 28A75 Length, area, volume, other geometric measure theory [See also 26B15, **49Q15**]
- 49Q15:** 2: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, 32Fxx, 32Wxx, 46-XX, 47Hxx, 53Cxx] { For geometric integration theory, see **49Q15** }
- 49Q20:** 1: 52A38 Length, area, volume [See also 26B15, 28A75, **49Q20**]
- 49Qxx:** 1: 57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also **49Qxx**, 37C10, 93B05]
- 49Qxx:** 2: 74Pxx Optimization [See also **49Qxx**]
- 49R05:** 1: 47A75 Eigenvalue problems [See also 47J10, **49R05**]
- 49R05:** 2: 47J10 Nonlinear spectral theory, nonlinear eigenvalue problems [See also **49R05**]
- 51-XX:** 1: 14Nxx Projective and enumerative geometry [See also **51-XX**]
- 51-XX:** 2: 20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40, 20H30, **51-XX**]
- 51-XX:** 3: 20H15 Other geometric groups, including crystallographic groups [See also **51-XX**, especially 51F15, and 82D25]
- 51D20:** 1: 05B25 Finite geometries [See also **51D20**, 51Exx]
- 51E05:** 1: 05B05 Block designs [See also **51E05**, 62K10]
- 51E24:** 1: 20E42 Groups with a BN -pair; buildings [See also **51E24**]
- 51E30:** 1: 05B30 Other designs, configurations [See also **51E30**]
- 51Exx:** 1: 05B25 Finite geometries [See also 51D20, **51Exx**]
- 51F15:** 1: 20F55 Reflection and Coxeter groups [See also 22E40, **51F15**]
- 51F15:** 2: 20H15 Other geometric groups, including crystallographic groups [See also 51-XX, especially **51F15**, and 82D25]
- 51F15:** 3: 51M20 Polyhedra and polytopes; regular figures, division of spaces [See also **51F15**]
- 51F20:** 1: 20H05 Unimodular groups, congruence subgroups [See also 11F06, 19B37, 22E40, **51F20**]
- 51H25:** 1: 53Cxx Global differential geometry [See also **51H25**, 58-XX; for related bundle theory, see 55Rxx, 57Rxx]
- 51Lxx:** 1: 53C75 Geometric orders, order geometry [See also **51Lxx**]
- 51M20:** 1: 52C20 Tilings in 2 dimensions [See also 05B45, **51M20**]
- 51M20:** 2: 52C22 Tilings in n dimensions [See also 05B45, **51M20**]
- 51M25:** 1: 26B15 Integration: length, area, volume [See also 28A75, **51M25**]
- 51M35:** 1: 14M15 Grassmannians, Schubert varieties, flag manifolds [See also 32M10, **51M35**]
- 51N05:** 1: 65D18 Computer graphics, image analysis, and computational geometry [See also **51N05**, 68U05]
- 51N30:** 1: 14L35 Classical groups (geometric aspects) [See also 20Gxx, **51N30**]
- 51N35:** 1: 14N05 Projective techniques [See also **51N35**]
- 52A07:** 1: 46A55 Convex sets in topological linear spaces; Choquet theory [See also **52A07**]
- 52A22:** 1: 53C65 Integral geometry [See also **52A22**, 60D05]; differential forms, currents, etc. [See mainly 58Axx]
- 52A22:** 2: 60Dxx Geometric probability and stochastic geometry [See also **52A22**, 53C65]
- 52A22:** 3: 60D05 Geometric probability and stochastic geometry [See also **52A22**, 53C65]
- 52A23:** 1: 46B06 Asymptotic theory of Banach spaces [See also **52A23**]
- 52A40:** 1: 51M16 Inequalities and extremum problems { For convex problems, see **52A40** }
- 52B20:** 1: 14M25 Toric varieties, Newton polyhedra [See also **52B20**]
- 52B20:** 2: 14Txx Tropical geometry [See also 12K10, 14M25, 14N10, **52B20**]
- 52B20:** 3: 14T05 Tropical geometry [See also 12K10, 14M25, 14N10, **52B20**]
- 52B40:** 1: 05B35 Matroids, geometric lattices [See also **52B40**, 90C27]
- 52C05:** 1: 11H06 Lattices and convex bodies [See also 11P21, **52C05**, 52C07]
- 52C07:** 1: 11H06 Lattices and convex bodies [See also 11P21, 52C05, **52C07**]
- 52C15:** 1: 05B40 Packing and covering [See also 11H31, **52C15**, 52C17]
- 52C15:** 2: 11H31 Lattice packing and covering [See also 05B40, **52C15**, 52C17]
- 52C17:** 1: 05B40 Packing and covering [See also 11H31, 52C15, **52C17**]
- 52C17:** 2: 11H31 Lattice packing and covering [See also 05B40, 52C15, **52C17**]
- 52C20:** 1: 05B45 Tessellation and tiling problems [See also **52C20**, 52C22]
- 52C22:** 1: 05B45 Tessellation and tiling problems [See also 52C20, **52C22**]
- 52C35:** 1: 32S22 Relations with arrangements of hyperplanes [See also **52C35**]
- 52Cxx:** 1: 52B40 Matroids (realizations in the context of convex polytopes, convexity in combinatorial structures, etc.) [See also 05B35, **52Cxx**]
- 53A04:** 1: 52A10 Convex sets in 2 dimensions (including convex curves) [See also **53A04**]

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- 53A05:** 1: 52A15 Convex sets in 3 dimensions (including convex surfaces) [See also **53A05**, 53C45]
53A07: 1: 52A20 Convex sets in n dimensions (including convex hypersurfaces) [See also **53A07**, 53C45]
53A10: 1: 49Q05 Minimal surfaces [See also **53A10**, 58E12]
53A10: 2: 53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49Q05, 49Q10, **53A10**, 57R40, 57R42]
53A17: 1: 70Bxx Kinematics [See also **53A17**]
53A25: 1: 51M30 Line geometries and their generalizations [See also **53A25**]
53A60: 1: 14C21 Pencils, nets, webs [See also **53A60**]
53Axx: 1: 46T05 Infinite-dimensional manifolds [See also **53Axx**, 57N20, 58Bxx, 58Dxx]
53B25: 1: 53C40 Global submanifolds [See also **53B25**]
53C07: 1: 81T13 Yang-Mills and other gauge theories [See also **53C07**, 58E15]
53C20: 1: 31C12 Potential theory on Riemannian manifolds [See also **53C20**; for Hodge theory, see 58A14]
53C20: 2: 58B20 Riemannian, Finsler and other geometric structures [See also **53C20**, 53C60]
53C28: 1: 32L25 Twistor theory, double fibrations [See also **53C28**]
53C30: 1: 14M17 Homogeneous spaces and generalizations [See also 32M10, **53C30**, 57T15]
53C35: 1: 32M15 Hermitian symmetric spaces, bounded symmetric domains, Jordan algebras [See also 22E10, 22E40, **53C35**, 57T15]
53C40: 1: 53B25 Local submanifolds [See also **53C40**]
53C42: 1: 53A10 Minimal surfaces, surfaces with prescribed mean curvature [See also 49Q05, 49Q10, **53C42**]
53C43: 1: 58E20 Harmonic maps [See also **53C43**], etc.
53C45: 1: 52A15 Convex sets in 3 dimensions (including convex surfaces) [See also 53A05, **53C45**]
53C45: 2: 52A20 Convex sets in n dimensions (including convex hypersurfaces) [See also 53A07, **53C45**]
53C60: 1: 58B20 Riemannian, Finsler and other geometric structures [See also 53C20, **53C60**]
53C65: 1: 52A22 Random convex sets and integral geometry [See also **53C65**, 60D05]
53C65: 2: 58A25 Currents [See also 32C30, **53C65**]
53C65: 3: 60Dxx Geometric probability and stochastic geometry [See also 52A22, **53C65**]
53C65: 4: 60D05 Geometric probability and stochastic geometry [See also 52A22, **53C65**]
53C70: 1: 51H25 Geometries with differentiable structure [See also 53Cxx, **53C70**]
53C75: 1: 51Lxx Geometric order structures [See also **53C75**]
53Cxx: 1: 32Q20 Kähler-Einstein manifolds [See also **53Cxx**]
53Cxx: 2: 35R01 Partial differential equations on manifolds [See also 32Wxx, **53Cxx**, 58Jxx]
53Cxx: 3: 51H25 Geometries with differentiable structure [See also **53Cxx**, 53C70]
53Cxx: 4: 58-XX Global analysis, analysis on manifolds [See also 32Cxx, 32Fxx, 32Wxx, 46-XX, 47Hxx, **53Cxx**] { For geometric integration theory, see 49Q15 }
53Cxx: 5: 58Dxx Spaces and manifolds of mappings (including nonlinear versions of 46Exx) [See also 46Txx, **53Cxx**]
53Cxx: 6: 58Jxx Partial differential equations on manifolds; differential operators [See also 32Wxx, 35-XX, **53Cxx**]
53Cxx: 7: 70G45 Differential-geometric methods (tensors, connections, symplectic, Poisson, contact, Riemannian, nonholonomic, etc.) [See also **53Cxx**, 53Dxx, 58Axx]
53D10: 1: 37J55 Contact systems [See also **53D10**]
53D20: 1: 37J15 Symmetries, invariants, invariant manifolds, momentum maps, reduction [See also **53D20**]
53D37: 1: 14J33 Mirror symmetry [See also 11G42, **53D37**]
53D45: 1: 14N35 Gromov-Witten invariants, quantum cohomology, Gopakumar-Vafa invariants, Donaldson-Thomas invariants [See also **53D45**]
53D50: 1: 81S10 Geometry and quantization, symplectic methods [See also **53D50**]
53Dxx: 1: 37Jxx Finite-dimensional Hamiltonian, Lagrangian, contact, and nonholonomic systems [See also **53Dxx**, 70Fxx, 70Hxx]
53Dxx: 2: 70G45 Differential-geometric methods (tensors, connections, symplectic, Poisson, contact, Riemannian, nonholonomic, etc.) [See also 53Cxx, **53Dxx**, 58Axx]
54-XX: 1: 06D22 Frames, locales { For topological questions see **54-XX** }
54-XX: 2: 18B30 Categories of topological spaces and continuous mappings [See also **54-XX**]
54B40: 1: 18F20 Presheaves and sheaves [See also 14F05, 32C35, 32L10, **54B40**, 55N30]
54C30: 1: 26-XX Real functions [See also **54C30**]
54C35: 1: 58D15 Manifolds of mappings [See also 46T10, **54C35**]
54C50: 1: 26A21 Classification of real functions; Baire classification of sets and functions [See also 03E15, 28A05, **54C50**]
54C55: 1: 55M15 Absolute neighborhood retracts [See also **54C55**]
54C56: 1: 55P55 Shape theory [See also **54C56**, 55Q07]

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- 54C56:** 2: 57N25 Shapes [See also **54C56**, 55P55, 55Q07]
- 54C60:** 1: 26E25 Set-valued functions [See also 28B20, **54C60**] { For nonsmooth analysis, see 49J52, 58Cxx, 90Cxx }
- 54C60:** 2: 28B20 Set-valued set functions and measures; integration of set-valued functions; measurable selections [See also 26E25, **54C60**, 54C65, 91B14]
- 54C60:** 3: 47H04 Set-valued operators [See also 28B20, **54C60**, 58C06]
- 54C60:** 4: 49J53 Set-valued and variational analysis [See also 28B20, 47H04, **54C60**, 58C06]
- 54C60:** 5: 58C06 Set valued and function-space valued mappings [See also 47H04, **54C60**]
- 54C65:** 1: 28B20 Set-valued set functions and measures; integration of set-valued functions; measurable selections [See also 26E25, 54C60, **54C65**, 91B14]
- 54D80:** 1: 54A25 Cardinality properties (cardinal functions and inequalities, discrete subsets) [See also 03Exx] { For ultrafilters, see **54D80** }
- 54E70:** 1: 47S50 Operator theory in probabilistic metric linear spaces [See also **54E70**]
- 54F05:** 1: 06B30 Topological lattices, order topologies [See also 06F30, 22A26, **54F05**, 54H12]
- 54F05:** 2: 06F30 Topological lattices, order topologies [See also 06B30, 22A26, **54F05**, 54H12]
- 54F45:** 1: 55M10 Dimension theory [See also **54F45**]
- 54H05:** 1: 03E15 Descriptive set theory [See also 28A05, **54H05**]
- 54H05:** 2: 28A05 Classes of sets (Borel fields, σ -rings, etc.), measurable sets, Suslin sets, analytic sets [See also 03E15, 26A21, **54H05**]
- 54H10:** 1: 28A60 Measures on Boolean rings, measure algebras [See also **54H10**]
- 54H12:** 1: 06B30 Topological lattices, order topologies [See also 06F30, 22A26, 54F05, **54H12**]
- 54H12:** 2: 06F30 Topological lattices, order topologies [See also 06B30, 22A26, 54F05, **54H12**]
- 54H15:** 1: 20M20 Semigroups of transformations, etc. [See also 47D03, 47H20, **54H15**]
- 54H15:** 2: 22-XX Topological groups, Lie groups { For transformation groups, see **54H15**, 57Sxx, 58-XX. For abstract harmonic analysis, see 43-XX }
- 54H15:** 3: 47H20 Semigroups of nonlinear operators [See also 37L05, 47J35, **54H15**, 58D07]
- 54H15:** 4: 57Sxx Topological transformation groups [See also 20F34, 22-XX, 37-XX, **54H15**, 58D05]
- 54H20:** 1: 28Dxx Measure-theoretic ergodic theory [See also 11K50, 11K55, 22D40, 37Axx, 47A35, **54H20**, 60Fxx, 60G10]
- 54H20:** 2: 37Bxx Topological dynamics [See also **54H20**]
- 54H20:** 3: 46L55 Noncommutative dynamical systems [See also 28Dxx, 37Kxx, 37Lxx, **54H20**]
- 54H25:** 1: 26A18 Iteration [See also 37Bxx, 37Cxx, 37Exx, 39B12, 47H10, **54H25**]
- 54H25:** 2: 47H10 Fixed-point theorems [See also 37C25, **54H25**, 55M20, 58C30]
- 54H25:** 3: 55M20 Fixed points and coincidences [See also **54H25**]
- 54J05:** 1: 03H05 Nonstandard models in mathematics [See also 26E35, 28E05, 30G06, 46S20, 47S20, **54J05**]
- 54J05:** 2: 26E35 Nonstandard analysis [See also 03H05, 28E05, **54J05**]
- 55M10:** 1: 54F45 Dimension theory [See also **55M10**]
- 55M15:** 1: 54C55 Absolute neighborhood extensor, absolute extensor, absolute neighborhood retract (ANR), absolute retract spaces (general properties) [See also **55M15**]
- 55M20:** 1: 47H10 Fixed-point theorems [See also 37C25, 54H25, **55M20**, 58C30]
- 55M20:** 2: 54H25 Fixed-point and coincidence theorems [See also 47H10, **55M20**]
- 55M25:** 1: 47H11 Degree theory [See also **55M25**, 58C30]
- 55Mxx:** 1: 54F35 Higher-dimensional local connectedness [See also **55Mxx**, 55Nxx]
- 55N05:** 1: 55Q70 Homotopy groups of special types [See also **55N05**, 55N07]
- 55N07:** 1: 55Q70 Homotopy groups of special types [See also 55N05, **55N07**]
- 55N15:** 1: 19Lxx Topological K -theory [See also **55N15**, 55R50, 55S25]
- 55N22:** 1: 14L05 Formal groups, p -divisible groups [See also **55N22**]
- 55N22:** 2: 19K33 EXT and K -homology [See also **55N22**]
- 55N22:** 3: 19L41 Connective K -theory, cobordism [See also **55N22**]
- 55N22:** 4: 57R77 Complex cobordism (U- and SU-cobordism) [See also **55N22**]
- 55N22:** 5: 57R90 Other types of cobordism [See also **55N22**]
- 55N30:** 1: 18F20 Presheaves and sheaves [See also 14F05, 32C35, 32L10, 54B40, **55N30**]
- 55N30:** 2: 32C35 Analytic sheaves and cohomology groups [See also 14Fxx, 18F20, **55N30**]
- 55N30:** 3: 32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also 14F05, 18F20, **55N30**]
- 55N91:** 1: 19L47 Equivariant K -theory [See also **55N91**, 55P91, 55Q91, 55R91, 55S91]
- 55Nxx:** 1: 18-XX Category theory; homological algebra { For commutative rings see 13Dxx, for associative rings 16Exx, for groups 20Jxx, for topological groups and related structures 57Txx; see also **55Nxx** and 55Uxx for algebraic topology }
- 55Nxx:** 2: 18Gxx Homological algebra [See also 13Dxx, 16Exx, 20Jxx, **55Nxx**, 55Uxx, 57Txx]

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55Nxx:	3:	54F35	Higher-dimensional local connectedness [See also 55Mxx, 55Nxx]
55P48:	1:	18D50	Operads [See also 55P48]
55P55:	1:	54C56	Shape theory [See also 55P55 , 57N25]
55P55:	2:	57N25	Shapes [See also 54C56, 55P55 , 55Q07]
55P91:	1:	19L47	Equivariant K -theory [See also 55N91, 55P91 , 55Q91, 55R91, 55S91]
55Q07:	1:	55P55	Shape theory [See also 54C56, 55Q07]
55Q07:	2:	57N25	Shapes [See also 54C56, 55P55, 55Q07]
55Q50:	1:	19L20	J -homomorphism, Adams operations [See also 55Q50]
55Q91:	1:	19L47	Equivariant K -theory [See also 55N91, 55P91, 55Q91 , 55R91, 55S91]
55R20:	1:	55Txx	Spectral sequences [See also 18G40, 55R20]
55R20:	2:	57T35	Applications of Eilenberg-Moore spectral sequences [See also 55R20 , 55T20]
55R50:	1:	19Lxx	Topological K -theory [See also 55N15, 55R50 , 55S25]
55R60:	1:	57N55	Microbundles and block bundles [See also 55R60 , 57Q50]
55R60:	2:	57Q50	Microbundles and block bundles [See also 55R60 , 57N55]
55R91:	1:	19L47	Equivariant K -theory [See also 55N91, 55P91, 55Q91, 55R91 , 55S91]
55Rxx:	1:	18F15	Abstract manifolds and fiber bundles [See also 55Rxx , 57Pxx]
55Rxx:	2:	32Lxx	Holomorphic fiber spaces [See also 55Rxx]
55Rxx:	3:	46L80	K -theory and operator algebras (including cyclic theory) [See also 18F25, 19Kxx, 46M20, 55Rxx , 58J22]
55Rxx:	4:	46M20	Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 19Kxx, 32Cxx, 32Lxx, 46L80, 46M15, 46M18, 55Rxx]
55Rxx:	5:	53Cxx	Global differential geometry [See also 51H25, 58-XX; for related bundle theory, see 55Rxx , 57Rxx]
55Rxx:	6:	57R22	Topology of vector bundles and fiber bundles [See also 55Rxx]
55S25:	1:	19Lxx	Topological K -theory [See also 55N15, 55R50, 55S25]
55S91:	1:	19L47	Equivariant K -theory [See also 55N91, 55P91, 55Q91, 55R91, 55S91]
55T20:	1:	57T35	Applications of Eilenberg-Moore spectral sequences [See also 55R20, 55T20]
55Txx:	1:	18G40	Spectral sequences, hypercohomology [See also 55Txx]
55Txx:	2:	55R20	Spectral sequences and homology of fiber spaces [See also 55Txx]
55U10:	1:	13F55	Stanley-Reisner face rings; simplicial complexes [See also 55U10]
55U10:	2:	18G30	Simplicial sets, simplicial objects (in a category) [See also 55U10]
55U15:	1:	18G35	Chain complexes [See also 18E30, 55U15]
55U25:	1:	18G15	Ext and Tor, generalizations, Künneth formula [See also 55U25]
55Uxx:	1:	18-XX	Category theory; homological algebra { For commutative rings see 13Dxx, for associative rings 16Exx, for groups 20Jxx, for topological groups and related structures 57Txx; see also 55Nxx and 55Uxx for algebraic topology }
55Uxx:	2:	18Gxx	Homological algebra [See also 13Dxx, 16Exx, 20Jxx, 55Nxx, 55Uxx , 57Txx]
55Uxx:	3:	57T30	Bar and cobar constructions [See also 18G55, 55Uxx]
57-XX:	1:	51H20	Topological geometries on manifolds [See also 57-XX]
57M05:	1:	20F06	Cancellation theory; application of van Kampen diagrams [See also 57M05]
57M05:	2:	20F34	Fundamental groups and their automorphisms [See also 57M05 , 57Sxx]
57M15:	1:	05C10	Planar graphs; geometric and topological aspects of graph theory [See also 57M15 , 57M25]
57M25:	1:	05C10	Planar graphs; geometric and topological aspects of graph theory [See also 57M15, 57M25]
57M25:	2:	32S55	Milnor fibration; relations with knot theory [See also 57M25 , 57Q45]
57M25:	3:	57Q45	Knots and links (in high dimensions) { For the low-dimensional case, see 57M25 }
57M40:	1:	57N12	Topology of E^3 and S^3 [See also 57M40]
57M50:	1:	57N16	Geometric structures on manifolds [See also 57M50]
57M60:	1:	22F30	Homogeneous spaces { For general actions on manifolds or preserving geometrical structures, see 57M60 , 57Sxx; for discrete subgroups of Lie groups, see especially 22E40 }
57Mxx:	1:	20F65	Geometric group theory [See also 05C25, 20E08, 57Mxx]
57Mxx:	2:	57N10	Topology of general 3-manifolds [See also 57Mxx]
57N12:	1:	57M40	Characterizations of E^3 and S^3 (Poincaré conjecture) [See also 57N12]
57N20:	1:	46T05	Infinite-dimensional manifolds [See also 53Axx, 57N20 , 58Bxx, 58Dxx]
57N25:	1:	54C56	Shape theory [See also 55P55, 57N25]
57N55:	1:	55R60	Microbundles and block bundles [See also 57N55 , 57Q50]
57N55:	2:	57Q50	Microbundles and block bundles [See also 55R60, 57N55]
57Nxx:	1:	46-XX	Functional analysis { For manifolds modeled on topological linear spaces, see 57Nxx , 58Bxx }
57Nxx:	2:	54-XX	General topology { For the topology of manifolds of all dimensions, see 57Nxx }

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- 57Nxx:** 3: 55Mxx Classical topics { For the topology of Euclidean spaces and manifolds, see **57Nxx** }
57Pxx: 1: 18F15 Abstract manifolds and fiber bundles [See also 55Rxx, **57Pxx**]
57Q10: 1: 19B28 K_1 of group rings and orders [See also **57Q10**]
57Q10: 2: 55Pxx Homotopy theory { For simple homotopy type, see **57Q10** }
57Q45: 1: 32S55 Milnor fibration; relations with knot theory [See also 57M25, **57Q45**]
57Q45: 2: 57M25 Knots and links in S^3 { For higher dimensions, see **57Q45** }
57Q50: 1: 55R60 Microbundles and block bundles [See also 57N55, **57Q50**]
57Q50: 2: 57N55 Microbundles and block bundles [See also 55R60, **57Q50**]
57R20: 1: 55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, 46M20, **57R20**, 57R22, 57R25]
57R20: 2: 55R40 Homology of classifying spaces, characteristic classes [See also 57Txx, **57R20**]
57R22: 1: 55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, 46M20, 57R20, **57R22**, 57R25]
57R25: 1: 55Rxx Fiber spaces and bundles [See also 18F15, 32Lxx, 46M20, 57R20, 57R22, **57R25**]
57R30: 1: 37C85 Dynamics of group actions other than **Z** and **R**, and foliations [See mainly 22Fxx, and also **57R30**, 57Sxx]
57R30: 2: 53C12 Foliations (differential geometric aspects) [See also **57R30**, 57R32]
57R32: 1: 22E41 Continuous cohomology [See also **57R32**, 57Txx, 58H10]
57R32: 2: 53C12 Foliations (differential geometric aspects) [See also 57R30, **57R32**]
57R32: 3: 58H10 Cohomology of classifying spaces for pseudogroup structures (Spencer, Gelfand-Fuks, etc.) [See also **57R32**]
57R40: 1: 53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49Q05, 49Q10, 53A10, **57R40**, 57R42]
57R42: 1: 53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49Q05, 49Q10, 53A10, 57R40, **57R42**]
57R56: 1: 81T45 Topological field theories [See also **57R56**, 58Dxx]
57R65: 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, 46L80, **57R65**, 57R67]
57R67: 1: 18F25 Algebraic K -theory and L -theory [See also 11Exx, 11R70, 11S70, 12-XX, 13D15, 14Cxx, 16E20, 19-XX, 46L80, 57R65, **57R67**]
57R67: 2: 19J25 Surgery obstructions [See also **57R67**]
57R75: 1: 55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 19L41, **57R75**, 57R77, 57R85, 57R90]
57R77: 1: 55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 19L41, 57R75, **57R77**, 57R85, 57R90]
57R85: 1: 55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 19L41, 57R75, 57R77, **57R85**, 57R90]
57R90: 1: 55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 19L41, 57R75, 57R77, 57R85, **57R90**]
57Rxx: 1: 53-XX Differential geometry { For differential topology, see **57Rxx**. For foundational questions of differentiable manifolds, see 58Axx }
57Rxx: 2: 53Cxx Global differential geometry [See also 51H25, 58-XX; for related bundle theory, see 55Rxx, **57Rxx**]
57Rxx: 3: 53D35 Global theory of symplectic and contact manifolds [See also **57Rxx**]
57S05: 1: 58D05 Groups of diffeomorphisms and homeomorphisms as manifolds [See also 22E65, **57S05**]
57S17: 1: 55M35 Finite groups of transformations (including Smith theory) [See also **57S17**]
57S20: 1: 22F05 General theory of group and pseudogroup actions { For topological properties of spaces with an action, see **57S20** }
57Sxx: 1: 20F34 Fundamental groups and their automorphisms [See also 57M05, **57Sxx**]
57Sxx: 2: 22-XX Topological groups, Lie groups { For transformation groups, see 54H15, **57Sxx**, 58-XX. For abstract harmonic analysis, see 43-XX }
57Sxx: 3: 22Exx Lie groups { For the topology of Lie groups and homogeneous spaces, see **57Sxx**, 57Txx; for analysis thereon, see 43A80, 43A85, 43A90 }
57Sxx: 4: 22F30 Homogeneous spaces { For general actions on manifolds or preserving geometrical structures, see 57M60, **57Sxx**; for discrete subgroups of Lie groups, see especially 22E40 }
57Sxx: 5: 37C85 Dynamics of group actions other than **Z** and **R**, and foliations [See mainly 22Fxx, and also 57R30, **57Sxx**]
57Sxx: 6: 54H15 Transformation groups and semigroups [See also 20M20, 22-XX, **57Sxx**]
57T05: 1: 16T05 Hopf algebras and their applications [See also 16S40, **57T05**]
57T15: 1: 14M17 Homogeneous spaces and generalizations [See also 32M10, 53C30, **57T15**]
57T15: 2: 32M10 Homogeneous complex manifolds [See also 14M17, **57T15**]
57T15: 3: 32M15 Hermitian symmetric spaces, bounded symmetric domains, Jordan algebras [See also 22E10, 22E40, 53C35, **57T15**]

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- 57T15:** 4: 53C30 Homogeneous manifolds [See also 14M15, 14M17, 32M10, **57T15**]
- 57T15:** 5: 53C35 Symmetric spaces [See also 32M15, **57T15**]
- 57T35:** 1: 55T20 Eilenberg-Moore spectral sequences [See also **57T35**]
- 57Txx:** 1: 18-XX Category theory; homological algebra { For commutative rings see 13Dxx, for associative rings 16Exx, for groups 20Jxx, for topological groups and related structures **57Txx**; see also 55Nxx and 55Uxx for algebraic topology }
- 57Txx:** 2: 18Gxx Homological algebra [See also 13Dxx, 16Exx, 20Jxx, 55Nxx, 55Uxx, **57Txx**]
- 57Txx:** 3: 22Exx Lie groups { For the topology of Lie groups and homogeneous spaces, see 57Sxx, **57Txx**; for analysis thereon, see 43A80, 43A85, 43A90 }
- 57Txx:** 4: 22E41 Continuous cohomology [See also 57R32, **57Txx**, 58H10]
- 57Txx:** 5: 55Nxx Homology and cohomology theories [See also **57Txx**]
- 57Txx:** 6: 55R40 Homology of classifying spaces, characteristic classes [See also **57Txx**, 57R20]
- 58-XX:** 1: 22-XX Topological groups, Lie groups { For transformation groups, see 54H15, 57Sxx, **58-XX**. For abstract harmonic analysis, see 43-XX }
- 58-XX:** 2: 28-XX Measure and integration { For analysis on manifolds, see **58-XX** }
- 58-XX:** 3: 30-XX Functions of a complex variable { For analysis on manifolds, see **58-XX** }
- 58-XX:** 4: 47Hxx Nonlinear operators and their properties { For global and geometric aspects, see **58-XX**, especially 58Cxx }
- 58-XX:** 5: 47Jxx Equations and inequalities involving nonlinear operators [See also 46Txx] { For global and geometric aspects, see **58-XX** }
- 58-XX:** 6: 53Cxx Global differential geometry [See also 51H25, **58-XX**; for related bundle theory, see 55Rxx, 57Rxx]
- 58-XX:** 7: 57R57 Applications of global analysis to structures on manifolds, Donaldson and Seiberg-Witten invariants [See also **58-XX**]
- 58A07:** 1: 14P20 Nash functions and manifolds [See also 32C07, **58A07**]
- 58A07:** 2: 32C05 Real-analytic manifolds, real-analytic spaces [See also 14Pxx, **58A07**]
- 58A14:** 1: 31C12 Potential theory on Riemannian manifolds [See also 53C20; for Hodge theory, see **58A14**]
- 58A15:** 1: 35B60 Continuation and prolongation of solutions [See also **58A15**, 58A17, 58Hxx]
- 58A17:** 1: 35B60 Continuation and prolongation of solutions [See also 58A15, **58A17**, 58Hxx]
- 58A25:** 1: 49Q15 Geometric measure and integration theory, integral and normal currents [See also 28A75, 32C30, **58A25**, 58C35]
- 58A50:** 1: 14M30 Supervarieties [See also 32C11, **58A50**]
- 58A50:** 2: 32C11 Complex supergeometry [See also 14A22, 14M30, **58A50**]
- 58A50:** 3: 46S60 Functional analysis on superspaces (supermanifolds) or graded spaces [See also **58A50** and 58C50]
- 58Axx:** 1: 53-XX Differential geometry { For differential topology, see 57Rxx. For foundational questions of differentiable manifolds, see **58Axx** }
- 58Axx:** 2: 53C65 Integral geometry [See also 52A22, 60D05]; differential forms, currents, etc. [See mainly **58Axx**]
- 58Axx:** 3: 57Rxx Differential topology { For foundational questions of differentiable manifolds, see **58Axx**; for infinite-dimensional manifolds, see 58Bxx }
- 58Axx:** 4: 70G45 Differential-geometric methods (tensors, connections, symplectic, Poisson, contact, Riemannian, nonholonomic, etc.) [See also 53Cxx, 53Dxx, **58Axx**]
- 58B12:** 1: 32-XX Several complex variables and analytic spaces { For infinite-dimensional holomorphy, see 46G20, **58B12** }
- 58B12:** 2: 46G20 Infinite-dimensional holomorphy [See also 32-XX, 46E50, 46T25, **58B12**, 58C10]
- 58B15:** 1: 47A53 (Semi-) Fredholm operators; index theories [See also **58B15**, 58J20]
- 58B20:** 1: 53C20 Global Riemannian geometry, including pinching [See also 31C12, **58B20**]
- 58B20:** 2: 53C60 Finsler spaces and generalizations (areal metrics) [See also **58B20**]
- 58B25:** 1: 22E65 Infinite-dimensional Lie groups and their Lie algebras: general properties [See also 17B65, **58B25**, 58H05]
- 58B32:** 1: 46L85 Noncommutative topology [See also **58B32**, 58B34, 58J22]
- 58B32:** 2: 46L87 Noncommutative differential geometry [See also **58B32**, 58B34, 58J22]
- 58B32:** 3: 46L89 Other “noncommutative” mathematics based on C^* -algebra theory [See also **58B32**, 58B34, 58J22]
- 58B34:** 1: 46L85 Noncommutative topology [See also 58B32, **58B34**, 58J22]
- 58B34:** 2: 46L87 Noncommutative differential geometry [See also 58B32, **58B34**, 58J22]
- 58B34:** 3: 46L89 Other “noncommutative” mathematics based on C^* -algebra theory [See also 58B32, **58B34**, 58J22]
- 58B34:** 4: 81T75 Noncommutative geometry methods [See also 46L85, 46L87, **58B34**]
- 58B34:** 5: 83C65 Methods of noncommutative geometry [See also **58B34**]

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- 58Bxx:** 1: 32K05 Banach analytic spaces [See also **58Bxx**]
58Bxx: 2: 35Rxx Miscellaneous topics { For equations on manifolds, see 58Jxx; for manifolds of solutions, see **58Bxx**; for stochastic PDE, see also 60H15 }
58Bxx: 3: 46-XX Functional analysis { For manifolds modeled on topological linear spaces, see 57Nxx, **58Bxx** }
58Bxx: 4: 46T05 Infinite-dimensional manifolds [See also 53Axx, 57N20, **58Bxx**, 58Dxx]
58Bxx: 5: 57N20 Topology of infinite-dimensional manifolds [See also **58Bxx**]
58Bxx: 6: 57Rxx Differential topology { For foundational questions of differentiable manifolds, see 58Axx; for infinite-dimensional manifolds, see **58Bxx** }
58C06: 1: 47H04 Set-valued operators [See also 28B20, 54C60, **58C06**]
58C06: 2: 49J53 Set-valued and variational analysis [See also 28B20, 47H04, 54C60, **58C06**]
58C06: 3: 54C60 Set-valued maps [See also 26E25, 28B20, 47H04, **58C06**]
58C10: 1: 46G20 Infinite-dimensional holomorphy [See also 32-XX, 46E50, 46T25, 58B12, **58C10**]
58C15: 1: 47J07 Abstract inverse mapping and implicit function theorems [See also 46T20 and **58C15**]
58C20: 1: 46G05 Derivatives [See also 46T20, **58C20**, 58C25]
58C20: 2: 49J50 Fréchet and Gateaux differentiability [See also 46G05, **58C20**]
58C25: 1: 26E10 C^∞ -functions, quasi-analytic functions [See also **58C25**]
58C25: 2: 32K15 Differentiable functions on analytic spaces, differentiable spaces [See also **58C25**]
58C25: 3: 46G05 Derivatives [See also 46T20, 58C20, **58C25**]
58C30: 1: 47H10 Fixed-point theorems [See also 37C25, 54H25, 55M20, **58C30**]
58C30: 2: 47H11 Degree theory [See also 55M25, **58C30**]
58C30: 3: 65H20 Global methods, including homotopy approaches [See also **58C30**, 90C30]
58C35: 1: 28Cxx Set functions and measures on spaces with additional structure [See also 46G12, **58C35**, 58D20]
58C35: 2: 28C20 Set functions and measures and integrals in infinite-dimensional spaces (Wiener measure, Gaussian measure, etc.) [See also 46G12, **58C35**, 58D20, 60B11]
58C35: 3: 46F25 Distributions on infinite-dimensional spaces [See also **58C35**]
58C35: 4: 49Q15 Geometric measure and integration theory, integral and normal currents [See also 28A75, 32C30, 58A25, **58C35**]
58C40: 1: 65H17 Eigenvalues, eigenvectors [See also 47Hxx, 47Jxx, **58C40**, 58E07, 90C30]
58C50: 1: 32K07 Formal and graded complex spaces [See also **58C50**]
58C50: 2: 46S60 Functional analysis on superspaces (supermanifolds) or graded spaces [See also 58A50 and **58C50**]
58C50: 3: 49J52 Nonsmooth analysis [See also 46G05, **58C50**, 90C56]
58Cxx: 1: 26Exx Miscellaneous topics [See also **58Cxx**]
58Cxx: 2: 26E15 Calculus of functions on infinite-dimensional spaces [See also 46G05, **58Cxx**]
58Cxx: 3: 26E20 Calculus of functions taking values in infinite-dimensional spaces [See also 46E40, 46G10, **58Cxx**]
58Cxx: 4: 26E25 Set-valued functions [See also 28B20, 54C60] { For nonsmooth analysis, see 49J52, **58Cxx**, 90Cxx }
58Cxx: 5: 46Txx Nonlinear functional analysis [See also 47Hxx, 47Jxx, **58Cxx**, 58Dxx]
58Cxx: 6: 47Hxx Nonlinear operators and their properties { For global and geometric aspects, see 58-XX, especially **58Cxx** }
58D05: 1: 22E67 Loop groups and related constructions, group-theoretic treatment [See also **58D05**]
58D05: 2: 57Sxx Topological transformation groups [See also 20F34, 22-XX, 37-XX, 54H15, **58D05**]
58D05: 3: 58B25 Group structures and generalizations on infinite-dimensional manifolds [See also 22E65, **58D05**]
58D07: 1: 47H20 Semigroups of nonlinear operators [See also 37L05, 47J35, 54H15, **58D07**]
58D15: 1: 54C35 Function spaces [See also 46Exx, **58D15**]
58D20: 1: 28Cxx Set functions and measures on spaces with additional structure [See also 46G12, 58C35, **58D20**]
58D20: 2: 28C20 Set functions and measures and integrals in infinite-dimensional spaces (Wiener measure, Gaussian measure, etc.) [See also 46G12, 58C35, **58D20**, 60B11]
58D25: 1: 34Gxx Differential equations in abstract spaces [See also 34Lxx, 37Kxx, 47Dxx, 47Hxx, 47Jxx, **58D25**]
58D25: 2: 35R15 Partial differential equations on infinite-dimensional (e.g. function) spaces (= PDE in infinitely many variables) [See also 46Gxx, **58D25**]
58D25: 3: 47J35 Nonlinear evolution equations [See also 34G20, 35K90, 35L90, 35Qxx, 35R20, 37Kxx, 37Lxx, 47H20, **58D25**]
58D29: 1: 81T70 Quantization in field theory; cohomological methods [See also **58D29**]
58D30: 1: 81S40 Path integrals [See also **58D30**]

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58Dxx:	1:	46Txx	Nonlinear functional analysis [See also 47Hxx, 47Jxx, 58Cxx, 58Dxx]
58Dxx:	2:	46T05	Infinite-dimensional manifolds [See also 53Axx, 57N20, 58Bxx, 58Dxx]
58Dxx:	3:	81T45	Topological field theories [See also 57R56, 58Dxx]
58E07:	1:	47J15	Abstract bifurcation theory [See also 34C23, 37Gxx, 58E07 , 58E09]
58E07:	2:	58C40	Spectral theory; eigenvalue problems [See also 47J10, 58E07]
58E07:	3:	65H17	Eigenvalues, eigenvectors [See also 47Hxx, 47Jxx, 58C40, 58E07 , 90C30]
58E09:	1:	47J15	Abstract bifurcation theory [See also 34C23, 37Gxx, 58E07, 58E09]
58E10:	1:	53C22	Geodesics [See also 58E10]
58E12:	1:	49Q05	Minimal surfaces [See also 53A10, 58E12]
58E15:	1:	81T13	Yang-Mills and other gauge theories [See also 53C07, 58E15]
58E20:	1:	53C43	Differential geometric aspects of harmonic maps [See also 58E20]
58Exx:	1:	47J30	Variational methods [See also 58Exx]
58Exx:	2:	49Qxx	Manifolds [See also 58Exx]
58H05:	1:	20Lxx	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02; for topological groupoids, see 22A22, 58H05 }
58H05:	2:	20L05	Groupoids (i.e. small categories in which all morphisms are isomorphisms) { For sets with a single binary operation, see 20N02; for topological groupoids, see 22A22, 58H05 }
58H05:	3:	22A22	Topological groupoids (including differentiable and Lie groupoids) [See also 58H05]
58H05:	4:	22E05	Local Lie groups [See also 34-XX, 35-XX, 58H05]
58H05:	5:	22E65	Infinite-dimensional Lie groups and their Lie algebras: general properties [See also 17B65, 58B25, 58H05]
58H10:	1:	22E41	Continuous cohomology [See also 57R32, 57Txx, 58H10]
58H10:	2:	32G05	Deformations of complex structures [See also 13D10, 16S80, 58H10 , 58H15]
58H10:	3:	57R32	Classifying spaces for foliations; Gelfand-Fuks cohomology [See also 58H10]
58H15:	1:	32G05	Deformations of complex structures [See also 13D10, 16S80, 58H10, 58H15]
58Hxx:	1:	35B60	Continuation and prolongation of solutions [See also 58A15, 58A17, 58Hxx]
58Hxx:	2:	35Nxx	Overdetermined systems [See also 58Hxx , 58J10, 58J15]
58J10:	1:	35Jxx	Elliptic equations and systems [See also 58J10 , 58J20]
58J10:	2:	35Nxx	Overdetermined systems [See also 58Hxx, 58J10 , 58J15]
58J10:	3:	35N15	$\bar{\partial}$ -Neumann problem and generalizations; formal complexes [See also 32W05, 32W10, 58J10]
58J10:	4:	58H15	Deformations of structures [See also 32Gxx, 58J10]
58J15:	1:	32C38	Sheaves of differential operators and their modules, D -modules [See also 14F10, 16S32, 35A27, 58J15]
58J15:	2:	35A27	Microlocal methods; methods of sheaf theory and homological algebra in PDE [See also 32C38, 58J15]
58J15:	3:	35Nxx	Overdetermined systems [See also 58Hxx, 58J10, 58J15]
58J15:	4:	35S35	Topological aspects: intersection cohomology, stratified sets, etc. [See also 32C38, 32S40, 32S60, 58J15]
58J15:	5:	46F15	Hyperfunctions, analytic functionals [See also 32A25, 32A45, 32C35, 58J15]
58J20:	1:	18G60	Other (co)homology theories [See also 19D55, 46L80, 58J20 , 58J22]
58J20:	2:	19K56	Index theory [See also 58J20 , 58J22]
58J20:	3:	35Jxx	Elliptic equations and systems [See also 58J10, 58J20]
58J20:	4:	47A53	(Semi-) Fredholm operators; index theories [See also 58B15, 58J20]
58J22:	1:	18G60	Other (co)homology theories [See also 19D55, 46L80, 58J20, 58J22]
58J22:	2:	19K35	Kasparov theory (KK -theory) [See also 58J22]
58J22:	3:	19K56	Index theory [See also 58J20, 58J22]
58J22:	4:	46L80	K -theory and operator algebras (including cyclic theory) [See also 18F25, 19Kxx, 46M20, 55Rxx, 58J22]
58J22:	5:	46L85	Noncommutative topology [See also 58B32, 58B34, 58J22]
58J22:	6:	46L87	Noncommutative differential geometry [See also 58B32, 58B34, 58J22]
58J22:	7:	46L89	Other “noncommutative” mathematics based on C^* -algebra theory [See also 58B32, 58B34, 58J22]
58J35:	1:	35Kxx	Parabolic equations and systems [See also 35Bxx, 35Dxx, 35R30, 35R35, 58J35]
58J37:	1:	47A55	Perturbation theory [See also 47H14, 58J37 , 70H09, 81Q15]
58J37:	2:	47H14	Perturbations of nonlinear operators [See also 47A55, 58J37 , 70H09, 70K60, 81Q15]
58J40:	1:	35Sxx	Pseudodifferential operators and other generalizations of partial differential operators [See also 47G30, 58J40]
58J45:	1:	35Lxx	Hyperbolic equations and systems [See also 58J45]
58J50:	1:	47A40	Scattering theory [See also 34L25, 35P25, 37K15, 58J50 , 81Uxx]
58J60:	1:	53C21	Methods of Riemannian geometry, including PDE methods; curvature restrictions [See

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- also **58J60**]
- 58J65:** 1: 60Hxx Stochastic analysis [See also **58J65**]
 - 58J65:** 2: 60J60 Diffusion processes [See also **58J65**]
 - 58J65:** 3: 60J65 Brownian motion [See also **58J65**]
 - 58J70:** 1: 35A30 Geometric theory, characteristics, transformations [See also **58J70**, **58J72**]
 - 58J72:** 1: 35A30 Geometric theory, characteristics, transformations [See also **58J70**, **58J72**]
 - 58Jxx:** 1: 35Rxx Miscellaneous topics { For equations on manifolds, see **58Jxx**; for manifolds of solutions, see **58Bxx**; for stochastic PDE, see also **60H15** }
 - 58Jxx:** 2: 35R01 Partial differential equations on manifolds [See also **32Wxx**, **53Cxx**, **58Jxx**]
 - 58Jxx:** 3: 37-XX Dynamical systems and ergodic theory [See also **26A18**, **28Dxx**, **34Cxx**, **34Dxx**, **35Bxx**, **46Lxx**, **58Jxx**, **70-XX**]
 - 58Jxx:** 4: 47Fxx Partial differential operators [See also **35Pxx**, **58Jxx**]
 - 58Jxx:** 5: 47F05 Partial differential operators [See also **35Pxx**, **58Jxx**] (should also be assigned at least one other classification number in section 47)
 - 58Jxx:** 6: 47Gxx Integral, integro-differential, and pseudodifferential operators [See also **58Jxx**]
 - 58Jxx:** 7: 47G30 Pseudodifferential operators [See also **35Sxx**, **58Jxx**]
 - 58Kxx:** 1: 14B05 Singularities [See also **14E15**, **14H20**, **14J17**, **32Sxx**, **58Kxx**]
 - 58Kxx:** 2: 32Sxx Singularities [See also **58Kxx**]
 - 58Kxx:** 3: 32S60 Stratifications; constructible sheaves; intersection cohomology [See also **58Kxx**]
 - 58Kxx:** 4: 35L67 Shocks and singularities [See also **58Kxx**, **76L05**]
 - 60-XX:** 1: 46T12 Measure (Gaussian, cylindrical, etc.) and integrals (Feynman, path, Fresnel, etc.) on manifolds [See also **28Cxx**, **46G12**, **60-XX**]
 - 60A05:** 1: 03B48 Probability and inductive logic [See also **60A05**]
 - 60B11:** 1: 28C20 Set functions and measures and integrals in infinite-dimensional spaces (Wiener measure, Gaussian measure, etc.) [See also **46G12**, **58C35**, **58D20**, **60B11**]
 - 60B12:** 1: 60Fxx Limit theorems [See also **28Dxx**, **60B12**]
 - 60B20:** 1: 05C80 Random graphs [See also **60B20**]
 - 60Bxx:** 1: 20Pxx Probabilistic methods in group theory [See also **60Bxx**]
 - 60Bxx:** 2: 20P05 Probabilistic methods in group theory [See also **60Bxx**]
 - 60Bxx:** 3: 28A33 Spaces of measures, convergence of measures [See also **46E27**, **60Bxx**]
 - 60Bxx:** 4: 46B09 Probabilistic methods in Banach space theory [See also **60Bxx**]
 - 60D05:** 1: 52A22 Random convex sets and integral geometry [See also **53C65**, **60D05**]
 - 60D05:** 2: 53C65 Integral geometry [See also **52A22**, **60D05**]; differential forms, currents, etc. [See mainly **58Axx**]
 - 60E15:** 1: 26Dxx Inequalities { For maximal function inequalities, see **42B25**; for functional inequalities, see **39B72**; for probabilistic inequalities, see **60E15** }
 - 60Exx:** 1: 62Exx Distribution theory [See also **60Exx**]
 - 60Exx:** 2: 62Hxx Multivariate analysis [See also **60Exx**]
 - 60Fxx:** 1: 28Dxx Measure-theoretic ergodic theory [See also **11K50**, **11K55**, **22D40**, **37Axx**, **47A35**, **54H20**, **60Fxx**, **60G10**]
 - 60Fxx:** 2: 37A50 Relations with probability theory and stochastic processes [See also **60Fxx** and **60G10**]
 - 60Fxx:** 3: 60A10 Probabilistic measure theory { For ergodic theory, see **28Dxx** and **60Fxx** }
 - 60G10:** 1: 28Dxx Measure-theoretic ergodic theory [See also **11K50**, **11K55**, **22D40**, **37Axx**, **47A35**, **54H20**, **60Fxx**, **60G10**]
 - 60G10:** 2: 37A50 Relations with probability theory and stochastic processes [See also **60Fxx** and **60G10**]
 - 60G25:** 1: 62M20 Prediction [See also **60G25**]; filtering [See also **60G35**, **93E10**, **93E11**]
 - 60G35:** 1: 62M20 Prediction [See also **60G25**]; filtering [See also **60G35**, **93E10**, **93E11**]
 - 60G35:** 2: 93E10 Estimation and detection [See also **60G35**]
 - 60G35:** 3: 93E11 Filtering [See also **60G35**]
 - 60G35:** 4: 94A05 Communication theory [See also **60G35**, **90B18**]
 - 60G40:** 1: 62L15 Optimal stopping [See also **60G40**, **91A60**]
 - 60G40:** 2: 91A60 Probabilistic games; gambling [See also **60G40**]
 - 60G50:** 1: 82B41 Random walks, random surfaces, lattice animals, etc. [See also **60G50**, **82C41**]
 - 60G50:** 2: 82C41 Dynamics of random walks, random surfaces, lattice animals, etc. [See also **60G50**]
 - 60Gxx:** 1: 70Qxx Control of mechanical systems [See also **60Gxx**, **60Jxx**]
 - 60Gxx:** 2: 70Q05 Control of mechanical systems [See also **60Gxx**, **60Jxx**]
 - 60Gxx:** 3: 76Fxx Turbulence [See also **37-XX**, **60Gxx**, **60Jxx**]
 - 60H10:** 1: 34Fxx Equations and systems with randomness [See also **34K50**, **60H10**, **93E03**]
 - 60H10:** 2: 34F05 Equations and systems with randomness [See also **34K50**, **60H10**, **93E03**]
 - 60H10:** 3: 37H10 Generation, random and stochastic difference and differential equations [See also **34F05**, **34K50**, **60H10**, **60H15**]

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- 60H10:** 4: 37L55 Infinite-dimensional random dynamical systems; stochastic equations [See also 35R60, **60H10**, **60H15**]
- 60H10:** 5: 58J65 Diffusion processes and stochastic analysis on manifolds [See also 35R60, **60H10**, **60J60**]
- 60H10:** 6: 82C31 Stochastic methods (Fokker-Planck, Langevin, etc.) [See also **60H10**]
- 60H15:** 1: 35Rxx Miscellaneous topics { For equations on manifolds, see 58Jxx; for manifolds of solutions, see 58Bxx; for stochastic PDE, see also **60H15** }
- 60H15:** 2: 35R60 Partial differential equations with randomness, stochastic partial differential equations [See also **60H15**]
- 60H15:** 3: 37H10 Generation, random and stochastic difference and differential equations [See also 34F05, 34K50, **60H10**, **60H15**]
- 60H15:** 4: 37L55 Infinite-dimensional random dynamical systems; stochastic equations [See also 35R60, **60H10**, **60H15**]
- 60H20:** 1: 45Rxx Random integral equations [See also **60H20**]
- 60H20:** 2: 45R05 Random integral equations [See also **60H20**]
- 60H25:** 1: 47B80 Random operators [See also 47H40, **60H25**]
- 60H25:** 2: 47H40 Random operators [See also 47B80, **60H25**]
- 60H30:** 1: 76D06 Statistical solutions of Navier-Stokes and related equations [See also **60H30**, 76M35]
- 60H35:** 1: 65Cxx Probabilistic methods, simulation and stochastic differential equations { For theoretical aspects, see 68U20 and **60H35** }
- 60Hxx:** 1: 34K50 Stochastic functional-differential equations [See also , **60Hxx**]
- 60J45:** 1: 31-XX Potential theory { For probabilistic potential theory, see **60J45** }
- 60J50:** 1: 31C35 Martin boundary theory [See also **60J50**]
- 60J60:** 1: 58J65 Diffusion processes and stochastic analysis on manifolds [See also 35R60, **60H10**, **60J60**]
- 60J60:** 2: 76R50 Diffusion [See also **60J60**]
- 60Jxx:** 1: 47D07 Markov semigroups and applications to diffusion processes { For Markov processes, see **60Jxx** }
- 60Jxx:** 2: 70Qxx Control of mechanical systems [See also 60Gxx, **60Jxx**]
- 60Jxx:** 3: 70Q05 Control of mechanical systems [See also 60Gxx, **60Jxx**]
- 60Jxx:** 4: 76Fxx Turbulence [See also 37-XX, 60Gxx, **60Jxx**]
- 60K10:** 1: 90B25 Reliability, availability, maintenance, inspection [See also **60K10**, 62N05]
- 60K25:** 1: 68M20 Performance evaluation; queueing; scheduling [See also **60K25**, 90Bxx]
- 60K25:** 2: 90B22 Queues and service [See also **60K25**, 68M20]
- 60K35:** 1: 82B43 Percolation [See also **60K35**]
- 60K35:** 2: 82C22 Interacting particle systems [See also **60K35**]
- 60K35:** 3: 82C43 Time-dependent percolation [See also **60K35**]
- 62-XX:** 1: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, **62-XX**, 90-XX, 91-XX, 92-XX, 93-XX, 94-XX }
- 62-XX:** 2: 91Cxx Social and behavioral sciences: general topics { For statistics, see **62-XX** }
- 62B10:** 1: 94A15 Information theory, general [See also **62B10**, 81P94]
- 62Cxx:** 1: 91A35 Decision theory for games [See also **62Cxx**, 91B06, 90B50]
- 62Cxx:** 2: 91B06 Decision theory [See also **62Cxx**, 90B50, 91A35]
- 62D05:** 1: 91C20 Clustering [See also **62D05**]
- 62Exx:** 1: 60Exx Distribution theory [See also **62Exx**, 62Hxx]
- 62H30:** 1: 68T10 Pattern recognition, speech recognition { For cluster analysis, see **62H30** }
- 62Hxx:** 1: 60Exx Distribution theory [See also 62Exx, **62Hxx**]
- 62K10:** 1: 05B05 Block designs [See also 51E05, **62K10**]
- 62L15:** 1: 60G40 Stopping times; optimal stopping problems; gambling theory [See also **62L15**, 91A60]
- 62M10:** 1: 91B84 Economic time series analysis [See also **62M10**]
- 62M20:** 1: 60G25 Prediction theory [See also **62M20**]
- 62M20:** 2: 60G35 Signal detection and filtering [See also **62M20**, 93E10, 93E11, 94Axx]
- 62N05:** 1: 90B25 Reliability, availability, maintenance, inspection [See also 60K10, **62N05**]
- 62P10:** 1: 92B15 General biostatistics [See also **62P10**]
- 62P20:** 1: 91Bxx Mathematical economics { For econometrics, see **62P20** }
- 65-XX:** 1: 68Wxx Algorithms { For numerical algorithms, see **65-XX**; for combinatorics and graph theory, see 05C85, 68Rxx }
- 65-XX:** 2: 74Sxx Numerical methods [See also **65-XX**, 74G15, 74H15]
- 65-XX:** 3: 76Mxx Basic methods in fluid mechanics [See also **65-XX**]
- 65-XX:** 4: 82B80 Numerical methods (Monte Carlo, series resummation, etc.) [See also **65-XX**, 81T80]
- 65B15:** 1: 40A25 Approximation to limiting values (summation of series, etc.) { For the Euler-Maclaurin summation formula, see **65B15** }
- 65C30:** 1: 60H35 Computational methods for stochastic equations [See also **65C30**]

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- 65C40:** 1: 60J22 Computational methods in Markov chains [See also **65C40**]
65Cxx: 1: 68U20 Simulation [See also **65Cxx**]
65D05: 1: 41A05 Interpolation [See also 42A15 and **65D05**]
65D17: 1: 51N05 Descriptive geometry [See also **65D17**, 68U07]
65D17: 2: 68U07 Computer-aided design [See also **65D17**]
65D18: 1: 68U05 Computer graphics; computational geometry [See also **65D18**]
65D20: 1: 33F05 Numerical approximation and evaluation [See also **65D20**]
65Dxx: 1: 41-XX Approximations and expansions { For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see **65Dxx** }
65E05: 1: 30C30 Numerical methods in conformal mapping theory [See also **65E05**]
65F22: 1: 47A52 Ill-posed problems, regularization [See also 35R25, 47J06, **65F22**, 65J20, 65L08, 65M30, 65R30]
65F22: 2: 47J06 Nonlinear ill-posed problems [See also 35R25, 47A52, **65F22**, 65J20, 65L08, 65M30, 65R30]
65F35: 1: 15A12 Conditioning of matrices [See also **65F35**]
65F35: 2: 15A60 Norms of matrices, numerical range, applications of functional analysis to matrix theory [See also **65F35**, 65J05]
65Fxx: 1: 65J10 Equations with linear operators (do not use **65Fxx**)
65Fxx: 2: 65M22 Solution of discretized equations [See also **65Fxx**, **65Hxx**]
65Fxx: 3: 65N22 Solution of discretized equations [See also **65Fxx**, **65Hxx**]
65H05: 1: 26C10 Polynomials: location of zeros [See also 12D10, 30C15, **65H05**]
65Hxx: 1: 65J15 Equations with nonlinear operators (do not use **65Hxx**)
65Hxx: 2: 65M22 Solution of discretized equations [See also **65Fxx**, **65Hxx**]
65Hxx: 3: 65N22 Solution of discretized equations [See also **65Fxx**, **65Hxx**]
65J05: 1: 15A60 Norms of matrices, numerical range, applications of functional analysis to matrix theory [See also 65F35, **65J05**]
65J15: 1: 47J25 Iterative procedures [See also **65J15**]
65J20: 1: 47A52 Ill-posed problems, regularization [See also 35R25, 47J06, 65F22, **65J20**, 65L08, 65M30, 65R30]
65J20: 2: 47J06 Nonlinear ill-posed problems [See also 35R25, 47A52, 65F22, **65J20**, 65L08, 65M30, 65R30]
65Jxx: 1: 46N40 Applications in numerical analysis [See also **65Jxx**]
65Jxx: 2: 47N40 Applications in numerical analysis [See also **65Jxx**]
65Kxx: 1: 49-XX Calculus of variations and optimal control; optimization [See also 34H05, 34K35, **65Kxx**, 90Cxx, 93-XX]
65Kxx: 2: 49Mxx Numerical methods [See also 90Cxx, **65Kxx**]
65Kxx: 3: 49M37 Methods of nonlinear programming type [See also 90C30, **65Kxx**]
65Kxx: 4: 90Cxx Mathematical programming [See also 49Mxx, **65Kxx**]
65L08: 1: 47A52 Ill-posed problems, regularization [See also 35R25, 47J06, 65F22, 65J20, **65L08**, 65M30, 65R30]
65L08: 2: 47J06 Nonlinear ill-posed problems [See also 35R25, 47A52, 65F22, 65J20, **65L08**, 65M30, 65R30]
65L80: 1: 34A09 Implicit equations, differential-algebraic equations [See also **65L80**]
65Lxx: 1: 34A45 Theoretical approximation of solutions { For numerical analysis, see **65Lxx** }
65M30: 1: 47A52 Ill-posed problems, regularization [See also 35R25, 47J06, 65F22, 65J20, 65L08, **65M30**, 65R30]
65M30: 2: 47J06 Nonlinear ill-posed problems [See also 35R25, 47A52, 65F22, 65J20, 65L08, **65M30**, 65R30]
65Mxx: 1: 35A35 Theoretical approximation to solutions { For numerical analysis, see **65Mxx**, 65Nxx }
65N22: 1: 65F10 Iterative methods for linear systems [See also **65N22**]
65Nxx: 1: 35A35 Theoretical approximation to solutions { For numerical analysis, see 65Mxx, **65Nxx** }
65Pxx: 1: 37Mxx Approximation methods and numerical treatment of dynamical systems [See also **65Pxx**]
65R10: 1: 44-XX Integral transforms, operational calculus { For fractional derivatives and integrals, see 26A33. For Fourier transforms, see 42A38, 42B10. For integral transforms in distribution spaces, see 46F12. For numerical methods, see **65R10** }
65R10: 2: 92C55 Biomedical imaging and signal processing [See also 44A12, **65R10**]
65R30: 1: 47A52 Ill-posed problems, regularization [See also 35R25, 47J06, 65F22, 65J20, 65L08, 65M30, 65R30]
65R30: 2: 47J06 Nonlinear ill-posed problems [See also 35R25, 47A52, 65F22, 65J20, 65L08, 65M30, 65R30]

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65Rxx:	1:	45Lxx	Theoretical approximation of solutions { For numerical analysis, see 65Rxx }
65Rxx:	2:	45L05	Theoretical approximation of solutions { For numerical analysis, see 65Rxx }
65Yxx:	1:	52B55	Computational aspects related to convexity { For computational geometry and algorithms, see 68Q25 , 68U05 ; for numerical algorithms, see 65Yxx } [See also 68Uxx]
68-XX:	1:	03B70	Logic in computer science [See also 68-XX]
68M07:	1:	65Y04	Algorithms for computer arithmetic, etc. [See also 68M07]
68M10:	1:	90B18	Communication networks [See also 68M10 , 94A05]
68M11:	1:	68U35	Information systems (hypertext navigation, interfaces, decision support, etc.) [See also 68M11]
68M20:	1:	60K25	Queueing theory [See also 68M20 , 90B22]
68M20:	2:	90B22	Queues and service [See also 60K25 , 68M20]
68M20:	3:	90B35	Scheduling theory, deterministic [See also 68M20]
68M20:	4:	90B36	Scheduling theory, stochastic [See also 68M20]
68N18:	1:	03B40	Combinatory logic and lambda-calculus [See also 68N18]
68P25:	1:	94A60	Cryptography [See also 11T71 , 14G50 , 68P25 , 81P94]
68P30:	1:	94A29	Source coding [See also 68P30]
68Q05:	1:	03D10	Turing machines and related notions [See also 68Q05]
68Q05:	2:	68Q12	Quantum algorithms and complexity [See also 68Q05 , 81P68]
68Q05:	3:	81P68	Quantum computation [See also 68Q05 , 68Q12]
68Q12:	1:	68Q05	Models of computation (Turing machines, etc.) [See also 03D10 , 68Q12 , 81P68]
68Q12:	2:	81P68	Quantum computation [See also 68Q05 , 68Q12]
68Q15:	1:	03C13	Finite structures [See also 68Q15 , 68Q19]
68Q15:	2:	03D15	Complexity of computation (including implicit computational complexity) [See also 68Q15 , 68Q17]
68Q15:	3:	68Q17	Computational difficulty of problems (lower bounds, completeness, difficulty of approximation, etc.) [See also 68Q15]
68Q17:	1:	03D15	Complexity of computation (including implicit computational complexity) [See also 68Q15 , 68Q17]
68Q17:	2:	68Q15	Complexity classes (hierarchies, relations among complexity classes, etc.) [See also 03D15 , 68Q17 , 68Q19]
68Q19:	1:	03C13	Finite structures [See also 68Q15 , 68Q19]
68Q19:	2:	68Q15	Complexity classes (hierarchies, relations among complexity classes, etc.) [See also 03D15 , 68Q17 , 68Q19]
68Q25:	1:	11Y16	Algorithms; complexity [See also 68Q25]
68Q25:	2:	52B55	Computational aspects related to convexity { For computational geometry and algorithms, see 68Q25 , 68U05 ; for numerical algorithms, see 65Yxx } [See also 68Uxx]
68Q25:	3:	65Y20	Complexity and performance of numerical algorithms [See also 68Q25]
68Q25:	4:	68W40	Analysis of algorithms [See also 68Q25]
68Q25:	5:	90C60	Abstract computational complexity for mathematical programming problems [See also 68Q25]
68Q30:	1:	03D32	Algorithmic randomness and dimension [See also 68Q30]
68Q32:	1:	68T05	Learning and adaptive systems [See also 68Q32 , 91E40]
68Q45:	1:	03D05	Automata and formal grammars in connection with logical questions [See also 68Q45 , 68Q70 , 68R15]
68Q45:	2:	94A45	Prefix, length-variable, comma-free codes [See also 20M35 , 68Q45]
68Q55:	1:	06B35	Continuous lattices and posets, applications [See also 06B30 , 06D10 , 06F30 , 18B35 , 22A26 , 68Q55]
68Q55:	2:	18C50	Categorical semantics of formal languages [See also 68Q55 , 68Q65]
68Q65:	1:	18C50	Categorical semantics of formal languages [See also 68Q55 , 68Q65]
68Q70:	1:	03D05	Automata and formal grammars in connection with logical questions [See also 68Q45 , 68Q70 , 68R15]
68Q70:	2:	20F10	Word problems, other decision problems, connections with logic and automata [See also 03B25 , 03D05 , 03D40 , 06B25 , 08A50 , 68Q70]
68Q70:	3:	20M35	Semigroups in automata theory, linguistics, etc. [See also 03D05 , 68Q70 , 68T50]
68Q70:	4:	68Q45	Formal languages and automata [See also 03D05 , 68Q70 , 94A45]
68Q80:	1:	37B15	Cellular automata [See also 68Q80]
68Q85:	1:	68Q10	Modes of computation (nondeterministic, parallel, interactive, probabilistic, etc.) [See also 68Q85]
68Qxx:	1:	18B20	Categories of machines, automata, operative categories [See also 03D05 , 68Qxx]
68R10:	1:	05Cxx	Graph theory { For applications of graphs, see 68R10 , 81Q30 , 81T15 , 82B20 , 82C20 , 90C35 , 92E10 , 94C15 }

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- 68R10:** 2: 05C62 Graph representations (geometric and intersection representations, etc.) {For graph drawing, see also **68R10**}
- 68R10:** 3: 05C85 Graph algorithms [See also **68R10**, **68W05**]
- 68R10:** 4: 05C90 Applications [See also **68R10**, **81Q30**, **81T15**, **82B20**, **82C20**, **90C35**, **92E10**, **94C15**]
- 68R10:** 5: **68M10** Network design and communication [See also **68R10**, **90B18**]
- 68R10:** 6: **94C15** Applications of graph theory [See also **05Cxx**, **68R10**]
- 68R15:** 1: **03D05** Automata and formal grammars in connection with logical questions [See also **68Q45**, **68Q70**, **68R15**]
- 68R15:** 2: **03D40** Word problems, etc. [See also **06B25**, **08A50**, **20F10**, **68R15**]
- 68R15:** 3: **08A50** Word problems [See also **03D40**, **06B25**, **20F10**, **68R15**]
- 68Rxx:** 1: **46B85** Embeddings of discrete metric spaces into Banach spaces; applications in topology and computer science [See also **05C12**, **68Rxx**]
- 68Rxx:** 2: **68Wxx** Algorithms { For numerical algorithms, see **65-XX**; for combinatorics and graph theory, see **05C85**, **68Rxx** }
- 68T05:** 1: **68Q32** Computational learning theory [See also **68T05**]
- 68T05:** 2: **82C32** Neural nets [See also **68T05**, **91E40**, **92B20**]
- 68T05:** 3: **91E40** Memory and learning [See also **68T05**]
- 68T05:** 4: **92B20** Neural networks, artificial life and related topics [See also **68T05**, **82C32**, **94Cxx**]
- 68T10:** 1: **62H30** Classification and discrimination; cluster analysis [See also **68T10**]
- 68T15:** 1: **03B35** Mechanization of proofs and logical operations [See also **68T15**]
- 68T27:** 1: **03B52** Fuzzy logic; logic of vagueness [See also **68T27**, **68T37**, **94D05**]
- 68T37:** 1: **03B52** Fuzzy logic; logic of vagueness [See also **68T27**, **68T37**, **94D05**]
- 68T40:** 1: **70B15** Mechanisms, robots [See also **68T40**, **70Q05**, **93C85**]
- 68T40:** 2: **70E60** Robot dynamics and control [See also **68T40**, **70Q05**, **93C85**]
- 68T40:** 3: **93C85** Automated systems (robots, etc.) [See also **68T40**, **70B15**, **70Q05**]
- 68T50:** 1: **03B65** Logic of natural languages [See also **68T50**, **91F20**]
- 68T50:** 2: **20M35** Semigroups in automata theory, linguistics, etc. [See also **03D05**, **68Q70**, **68T50**]
- 68T50:** 3: **91F20** Linguistics [See also **03B65**, **68T50**]
- 68U05:** 1: **52B55** Computational aspects related to convexity { For computational geometry and algorithms, see **68Q25**, **68U05**; for numerical algorithms, see **65Yxx** } [See also **68Uxx**]
- 68U05:** 2: **52C45** Combinatorial complexity of geometric structures [See also **68U05**]
- 68U05:** 3: **65D18** Computer graphics, image analysis, and computational geometry [See also **51N05**, **68U05**]
- 68U07:** 1: **51N05** Descriptive geometry [See also **65D17**, **68U07**]
- 68U07:** 2: **65D17** Computer aided design (modeling of curves and surfaces) [See also **68U07**]
- 68U10:** 1: **94A08** Image processing (compression, reconstruction, etc.) [See also **68U10**]
- 68U20:** 1: **65Cxx** Probabilistic methods, simulation and stochastic differential equations { For theoretical aspects, see **68U20** and **60H35** }
- 68U20:** 2: **65C20** Models, numerical methods [See also **68U20**]
- 68U35:** 1: **68M11** Internet topics [See also **68U35**]
- 68Uxx:** 1: **52B55** Computational aspects related to convexity { For computational geometry and algorithms, see **68Q25**, **68U05**; for numerical algorithms, see **65Yxx** } [See also **68Uxx**]
- 68Uxx:** 2: **65Dxx** Numerical approximation and computational geometry (primarily algorithms) { For theory, see **41-XX** and **68Uxx** }
- 68W05:** 1: **05C85** Graph algorithms [See also **68R10**, **68W05**]
- 68W20:** 1: **68Q87** Probability in computer science (algorithm analysis, random structures, phase transitions, etc.) [See also **68W20**, **68W40**]
- 68W30:** 1: **13Pxx** Computational aspects and applications [See also **14Qxx**, **68W30**]
- 68W30:** 2: **14Qxx** Computational aspects in algebraic geometry [See also **12Y05**, **13Pxx**, **68W30**]
- 68W30:** 3: **16Z05** Computational aspects of associative rings [See also **68W30**]
- 68W30:** 4: **33F10** Symbolic computation (Gosper and Zeilberger algorithms, etc.) [See also **68W30**]
- 68W40:** 1: **68Q25** Analysis of algorithms and problem complexity [See also **68W40**]
- 68W40:** 2: **68Q87** Probability in computer science (algorithm analysis, random structures, phase transitions, etc.) [See also **68W20**, **68W40**]
- 70-XX:** 1: **37-XX** Dynamical systems and ergodic theory [See also **26A18**, **28Dxx**, **34Cxx**, **34Dxx**, **35Bxx**, **46Lxx**, **58Jxx**, **70-XX**]
- 70B15:** 1: **52C25** Rigidity and flexibility of structures [See also **70B15**]
- 70B15:** 2: **93C85** Automated systems (robots, etc.) [See also **68T40**, **70B15**, **70Q05**]
- 70F15:** 1: **85-XX** Astronomy and astrophysics { For celestial mechanics, see **70F15** }
- 70F15:** 2: **85Axx** Astronomy and astrophysics { For celestial mechanics, see **70F15** }
- 70F20:** 1: **70H45** Constrained dynamics, Dirac's theory of constraints [See also **70F20**, **70F25**, **70Gxx**]

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70F25:	1:	37J60	Nonholonomic dynamical systems [See also 70F25]
70F25:	2:	70E18	Motion of a rigid body in contact with a solid surface [See also 70F25]
70F25:	3:	70H45	Constrained dynamics, Dirac's theory of constraints [See also 70F20, 70F25 , 70Gxx]
70Fxx:	1:	37Jxx	Finite-dimensional Hamiltonian, Lagrangian, contact, and nonholonomic systems [See also 53Dxx, 70Fxx , 70Hxx]
70Fxx:	2:	37N05	Dynamical systems in classical and celestial mechanics [See mainly 70Fxx , 70Hxx, 70Kxx]
70Gxx:	1:	53Dxx	Symplectic geometry, contact geometry [See also 37Jxx, 70Gxx , 70Hxx]
70Gxx:	2:	70H45	Constrained dynamics, Dirac's theory of constraints [See also 70F20, 70F25, 70Gxx]
70H09:	1:	47A55	Perturbation theory [See also 47H14, 58J37, 70H09 , 81Q15]
70H09:	2:	47H14	Perturbations of nonlinear operators [See also 47A55, 58J37, 70H09 , 70K60, 81Q15]
70Hxx:	1:	37Jxx	Finite-dimensional Hamiltonian, Lagrangian, contact, and nonholonomic systems [See also 53Dxx, 70Fxx, 70Hxx]
70Hxx:	2:	37N05	Dynamical systems in classical and celestial mechanics [See mainly 70Fxx, 70Hxx , 70Kxx]
70Hxx:	3:	53Dxx	Symplectic geometry, contact geometry [See also 37Jxx, 70Gxx, 70Hxx]
70K60:	1:	47H14	Perturbations of nonlinear operators [See also 47A55, 58J37, 70H09, 70K60 , 81Q15]
70Kxx:	1:	37N05	Dynamical systems in classical and celestial mechanics [See mainly 70Fxx, 70Hxx, 70Kxx]
70L05:	1:	37Hxx	Random dynamical systems [See also 15B52, 34D08, 34F05, 47B80, 70L05 , 82C05, 93Exx]
70M20:	1:	70E15	Free motion of a rigid body [See also 70M20]
70Q05:	1:	70B15	Mechanisms, robots [See also 68T40, 70Q05 , 93C85]
70Q05:	2:	70E60	Robot dynamics and control [See also 68T40, 70Q05 , 93C85]
70Q05:	3:	93C85	Automated systems (robots, etc.) [See also 68T40, 70B15, 70Q05]
70Sxx:	1:	81Txx	Quantum field theory; related classical field theories [See also 70Sxx]
74-XX:	1:	76-XX	Fluid mechanics { For general continuum mechanics, see 74Axx, or other parts of 74-XX }
74A15:	1:	80-XX	Classical thermodynamics, heat transfer { For thermodynamics of solids, see 74A15 }
74A15:	2:	80A17	Thermodynamics of continua [See also 74A15]
74A50:	1:	74Nxx	Phase transformations in solids [See also 74A50 , 80Axx, 82B26, 82C26]
74Axx:	1:	76-XX	Fluid mechanics { For general continuum mechanics, see 74Axx , or other parts of 74-XX }
74C99:	1:	76T25	Granular flows [See also 74C99 , 74E20]
74E20:	1:	76T25	Granular flows [See also 74C99, 74E20]
74F10:	1:	76Zxx	Biological fluid mechanics [See also 74F10 , 74L15, 92Cxx]
74G15:	1:	74Sxx	Numerical methods [See also 65-XX, 74G15 , 74H15]
74H15:	1:	74Sxx	Numerical methods [See also 65-XX, 74G15, 74H15]
74H50:	1:	70Lxx	Random vibrations [See also 74H50]
74H50:	2:	70L05	Random vibrations [See also 74H50]
74Hxx:	1:	37N15	Dynamical systems in solid mechanics [See mainly 74Hxx]
74L15:	1:	76Zxx	Biological fluid mechanics [See also 74F10, 74L15 , 92Cxx]
74L15:	2:	92C10	Biomechanics [See also 74L15]
74N30:	1:	47J40	Equations with hysteresis operators [See also 34C55, 74N30]
74Nxx:	1:	80A22	Stefan problems, phase changes, etc. [See also 74Nxx]
74Qxx:	1:	35B27	Homogenization; equations in media with periodic structure [See also 74Qxx , 76M50]
76-XX:	1:	37N10	Dynamical systems in fluid mechanics, oceanography and meteorology [See mainly 76-XX , especially 76D05, 76F20, 86A05, 86A10]
76B45:	1:	76D45	Capillarity (surface tension) [See also 76B45]
76Bxx:	1:	86A05	Hydrology, hydrography, oceanography [See also 76Bxx , 76E20, 76Q05, 76Rxx, 76U05]
76Bxx:	2:	86A10	Meteorology and atmospheric physics [See also 76Bxx , 76E20, 76N15, 76Q05, 76Rxx, 76U05]
76D05:	1:	35Q30	Navier-Stokes equations [See also 76D05 , 76D07, 76N10]
76D05:	2:	35Q31	Euler equations [See also 76D05 , 76D07, 76N10]
76D05:	3:	37N10	Dynamical systems in fluid mechanics, oceanography and meteorology [See mainly 76-XX, especially 76D05 , 76F20, 86A05, 86A10]
76D07:	1:	35Q30	Navier-Stokes equations [See also 76D05, 76D07 , 76N10]
76D07:	2:	35Q31	Euler equations [See also 76D05, 76D07 , 76N10]
76D45:	1:	76B45	Capillarity (surface tension) [See also 76D45]
76E15:	1:	76F35	Convective turbulence [See also 76E15 , 76Rxx]
76E20:	1:	86A05	Hydrology, hydrography, oceanography [See also 76Bxx, 76E20 , 76Q05, 76Rxx, 76U05]

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- 76E20:** 2: 86A10 Meteorology and atmospheric physics [See also 76Bxx, **76E20**, 76N15, 76Q05, 76Rxx, 76U05]
- 76F20:** 1: 37N10 Dynamical systems in fluid mechanics, oceanography and meteorology [See mainly 76-XX, especially 76D05, **76F20**, 86A05, 86A10]
- 76L05:** 1: 35L67 Shocks and singularities [See also 58Kxx, **76L05**]
- 76M35:** 1: 76D06 Statistical solutions of Navier-Stokes and related equations [See also 60H30, **76M35**]
- 76M35:** 2: 76F55 Statistical turbulence modeling [See also **76M35**]
- 76M50:** 1: 35B27 Homogenization; equations in media with periodic structure [See also 74Qxx, **76M50**]
- 76N10:** 1: 35Q30 Navier-Stokes equations [See also 76D05, 76D07, **76N10**]
- 76N10:** 2: 35Q31 Euler equations [See also 76D05, 76D07, **76N10**]
- 76N15:** 1: 86A10 Meteorology and atmospheric physics [See also 76Bxx, 76E20, **76N15**, 76Q05, 76Rxx, 76U05]
- 76Q05:** 1: 86A05 Hydrology, hydrography, oceanography [See also 76Bxx, 76E20, **76Q05**, 76Rxx, 76U05]
- 76Q05:** 2: 86A10 Meteorology and atmospheric physics [See also 76Bxx, 76E20, 76N15, **76Q05**, 76Rxx, 76U05]
- 76Rxx:** 1: 76F35 Convective turbulence [See also 76E15, **76Rxx**]
- 76Rxx:** 2: 86A05 Hydrology, hydrography, oceanography [See also 76Bxx, 76E20, 76Q05, **76Rxx**, 76U05]
- 76Rxx:** 3: 86A10 Meteorology and atmospheric physics [See also 76Bxx, 76E20, 76N15, 76Q05, **76Rxx**, 76U05]
- 76U05:** 1: 86-XX Geophysics [See also **76U05**, 76V05]
- 76U05:** 2: 86Axx Geophysics [See also **76U05**, 76V05]
- 76U05:** 3: 86A05 Hydrology, hydrography, oceanography [See also 76Bxx, 76E20, 76Q05, 76Rxx, **76U05**]
- 76U05:** 4: 86A10 Meteorology and atmospheric physics [See also 76Bxx, 76E20, 76N15, 76Q05, 76Rxx, **76U05**]
- 76V05:** 1: 80A30 Chemical kinetics [See also **76V05**, 92C45, 92E20]
- 76V05:** 2: 86-XX Geophysics [See also 76U05, **76V05**]
- 76V05:** 3: 86Axx Geophysics [See also 76U05, **76V05**]
- 76W05:** 1: 86A25 Geo-electricity and geomagnetism [See also **76W05**, 78A25]
- 76Y05:** 1: 85A30 Hydrodynamic and hydromagnetic problems [See also **76Y05**]
- 76Z05:** 1: 92C35 Physiological flow [See also **76Z05**]
- 78-XX:** 1: 70Sxx Classical field theories [See also 37Kxx, 37Lxx, **78-XX**, 81Txx, 83-XX]
- 78A25:** 1: 86A25 Geo-electricity and geomagnetism [See also 76W05, **78A25**]
- 78A50:** 1: 82D77 Quantum wave guides, quantum wires [See also **78A50**]
- 80-XX:** 1: 82B30 Statistical thermodynamics [See also **80-XX**]
- 80A30:** 1: 92C45 Kinetics in biochemical problems (pharmacokinetics, enzyme kinetics, etc.) [See also **80A30**]
- 80A30:** 2: 92E20 Classical flows, reactions, etc. [See also **80A30**, 80A32]
- 80A32:** 1: 76Vxx Reaction effects in flows [See also **80A32**]
- 80A32:** 2: 76V05 Reaction effects in flows [See also **80A32**]
- 80A32:** 3: 92E20 Classical flows, reactions, etc. [See also 80A30, **80A32**]
- 80Axx:** 1: 74Nxx Phase transformations in solids [See also 74A50, **80Axx**, 82B26, 82C26]
- 81P10:** 1: 03G12 Quantum logic [See also 06C15, **81P10**]
- 81P10:** 2: 06C15 Complemented lattices, orthocomplemented lattices and posets [See also 03G12, **81P10**]
- 81P68:** 1: 68Q05 Models of computation (Turing machines, etc.) [See also 03D10, 68Q12, **81P68**]
- 81P68:** 2: 68Q12 Quantum algorithms and complexity [See also 68Q05, **81P68**]
- 81P94:** 1: 68P25 Data encryption [See also 94A60, **81P94**]
- 81P94:** 2: 94A15 Information theory, general [See also 62B10, **81P94**]
- 81P94:** 3: 94A60 Cryptography [See also 11T71, 14G50, 68P25, **81P94**]
- 81P94:** 4: 94A62 Authentication and secret sharing [See also **81P94**]
- 81Q15:** 1: 47A55 Perturbation theory [See also 47H14, 58J37, 70H09, **81Q15**]
- 81Q15:** 2: 47H14 Perturbations of nonlinear operators [See also 47A55, 58J37, 70H09, 70K60, **81Q15**]
- 81Q30:** 1: 05Cxx Graph theory { For applications of graphs, see 68R10, **81Q30**, 81T15, 82B20, 82C20, 90C35, 92E10, 94C15 }
- 81Q30:** 2: 05C90 Applications [See also 68R10, **81Q30**, 81T15, 82B20, 82C20, 90C35, 92E10, 94C15]
- 81R05:** 1: 22E70 Applications of Lie groups to physics; explicit representations [See also **81R05**, 81R10]
- 81R10:** 1: 22E70 Applications of Lie groups to physics; explicit representations [See also 81R05, **81R10**]
- 81R50:** 1: 16T20 Ring-theoretic aspects of quantum groups [See also 17B37, 20G42, **81R50**]
- 81R50:** 2: 17B37 Quantum groups (quantized enveloping algebras) and related deformations [See also 16T20, 20G42, **81R50**, 82B23]
- 81R50:** 3: 20G42 Quantum groups (quantized function algebras) and their representations [See also 16T20, 17B37, **81R50**]

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81T05:	1:	46L60	Applications of selfadjoint operator algebras to physics [See also 46N50, 46N55, 47L90, 81T05 , 82B10, 82C10]
81T05:	2:	81R15	Operator algebra methods [See also 46Lxx, 81T05]
81T13:	1:	58E15	Application to extremal problems in several variables; Yang-Mills functionals [See also 81T13], etc.
81T15:	1:	05Cxx	Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15 , 82B20, 82C20, 90C35, 92E10, 94C15 }
81T15:	2:	05C90	Applications [See also 68R10, 81Q30, 81T15 , 82B20, 82C20, 90C35, 92E10, 94C15]
81T17:	1:	82B28	Renormalization group methods [See also 81T17]
81T17:	2:	82C28	Dynamic renormalization group methods [See also 81T17]
81T20:	1:	83C47	Methods of quantum field theory [See also 81T20]
81T30:	1:	83E30	String and superstring theories [See also 81T30]
81T80:	1:	82B80	Numerical methods (Monte Carlo, series resummation, etc.) [See also 65-XX, 81T80]
81T99:	1:	76F30	Renormalization and other field-theoretical methods [See also 81T99]
81Txx:	1:	70Sxx	Classical field theories [See also 37Kxx, 37Lxx, 78-XX, 81Txx , 83-XX]
81Uxx:	1:	47A40	Scattering theory [See also 34L25, 35P25, 37K15, 58J50, 81Uxx]
81V80:	1:	78-XX	Optics, electromagnetic theory { For quantum optics, see 81V80 }
81V80:	2:	78A60	Lasers, masers, optical bistability, nonlinear optics [See also 81V80]
81V80:	3:	81R30	Coherent states [See also 22E45]; squeezed states [See also 81V80]
82-XX:	1:	70-XX	Mechanics of particles and systems { For relativistic mechanics, see 83A05 and 83C10; for statistical mechanics, see 82-XX }
82B10:	1:	46L60	Applications of selfadjoint operator algebras to physics [See also 46N50, 46N55, 47L90, 81T05, 82B10 , 82C10]
82B20:	1:	05Cxx	Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15, 82B20 , 82C20, 90C35, 92E10, 94C15 }
82B20:	2:	05C90	Applications [See also 68R10, 81Q30, 81T15, 82B20 , 82C20, 90C35, 92E10, 94C15]
82B23:	1:	17B37	Quantum groups (quantized enveloping algebras) and related deformations [See also 16T20, 20G42, 81R50, 82B23]
82B26:	1:	74Nxx	Phase transformations in solids [See also 74A50, 80Axx, 82B26 , 82C26]
82B30:	1:	81T28	Thermal quantum field theory [see also 82B30]
82B40:	1:	76Pxx	Rarefied gas flows, Boltzmann equation [See also 82B40 , 82C40, 82D05]
82B40:	2:	76P05	Rarefied gas flows, Boltzmann equation [See also 82B40 , 82C40, 82D05]
82B43:	1:	60K35	Interacting random processes; statistical mechanics type models; percolation theory [See also 82B43 , 82C43]
82C05:	1:	37Hxx	Random dynamical systems [See also 15B52, 34D08, 34F05, 47B80, 70L05, 82C05 , 93Exx]
82C10:	1:	46L60	Applications of selfadjoint operator algebras to physics [See also 46N50, 46N55, 47L90, 81T05, 82B10, 82C10]
82C20:	1:	05Cxx	Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15, 82B20, 82C20 , 90C35, 92E10, 94C15 }
82C20:	2:	05C90	Applications [See also 68R10, 81Q30, 81T15, 82B20, 82C20 , 90C35, 92E10, 94C15]
82C26:	1:	74Nxx	Phase transformations in solids [See also 74A50, 80Axx, 82B26, 82C26]
82C31:	1:	81S22	Open systems, reduced dynamics, master equations, decoherence [See also 82C31]
82C32:	1:	92B20	Neural networks, artificial life and related topics [See also 68T05, 82C32 , 94Cxx]
82C40:	1:	76Pxx	Rarefied gas flows, Boltzmann equation [See also 82B40, 82C40 , 82D05]
82C40:	2:	76P05	Rarefied gas flows, Boltzmann equation [See also 82B40, 82C40 , 82D05]
82C41:	1:	82B41	Random walks, random surfaces, lattice animals, etc. [See also 60G50, 82C41]
82C43:	1:	60K35	Interacting random processes; statistical mechanics type models; percolation theory [See also 82B43, 82C43]
82C80:	1:	65C35	Stochastic particle methods [See also 82C80]
82Cxx:	1:	37A60	Dynamical systems in statistical mechanics [See also 82Cxx]
82D05:	1:	76Pxx	Rarefied gas flows, Boltzmann equation [See also 82B40, 82C40, 82D05]
82D05:	2:	76P05	Rarefied gas flows, Boltzmann equation [See also 82B40, 82C40, 82D05]
82D10:	1:	76Xxx	Ionized gas flow in electromagnetic fields; plasmic flow [See also 82D10]
82D10:	2:	76X05	Ionized gas flow in electromagnetic fields; plasmic flow [See also 82D10]
82D20:	1:	81V65	Quantum dots [See also 82D20]
82D25:	1:	20H15	Other geometric groups, including crystallographic groups [See also 51-XX, especially 51F15, and 82D25]
82D30:	1:	76A15	Liquid crystals [See also 82D30]
82D50:	1:	76Yxx	Quantum hydrodynamics and relativistic hydrodynamics [See also 82D50 , 83C55, 85A30]

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- 82D50:** 2: 76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also **82D50**, 83C55, 85A30]
- 83-XX:** 1: 70Sxx Classical field theories [See also 37Kxx, 37Lxx, 78-XX, 81Txx, **83-XX**]
- 83A05:** 1: 70-XX Mechanics of particles and systems { For relativistic mechanics, see **83A05** and 83C10; for statistical mechanics, see 82-XX }
- 83C10:** 1: 70-XX Mechanics of particles and systems { For relativistic mechanics, see 83A05 and **83C10**; for statistical mechanics, see 82-XX }
- 83C55:** 1: 76Yxx Quantum hydrodynamics and relativistic hydrodynamics [See also 82D50, **83C55**, 85A30]
- 83C55:** 2: 76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 82D50, **83C55**, 85A30]
- 83Cxx:** 1: 81V17 Gravitational interaction [See also **83Cxx** and 83Exx]
- 83E30:** 1: 81T30 String and superstring theories; other extended objects (e.g., branes) [See also **83E30**]
- 83Exx:** 1: 81V17 Gravitational interaction [See also 83Cxx and **83Exx**]
- 83F05:** 1: 85A40 Cosmology { For relativistic cosmology, see **83F05** }
- 85A30:** 1: 76Yxx Quantum hydrodynamics and relativistic hydrodynamics [See also 82D50, 83C55, 85A30]
- 85A30:** 2: 76Y05 Quantum hydrodynamics and relativistic hydrodynamics [See also 82D50, 83C55, 85A30]
- 86-XX:** 1: 74L05 Geophysical solid mechanics [See also **86-XX**]
- 86A05:** 1: 37N10 Dynamical systems in fluid mechanics, oceanography and meteorology [See mainly 76-XX, especially 76D05, 76F20, **86A05**, 86A10]
- 86A05:** 2: 76B65 Rossby waves [See also **86A05**, 86A10]
- 86A10:** 1: 37N10 Dynamical systems in fluid mechanics, oceanography and meteorology [See mainly 76-XX, especially 76D05, 76F20, 86A05, **86A10**]
- 86A10:** 2: 76B60 Atmospheric waves [See also **86A10**]
- 86A10:** 3: 76B65 Rossby waves [See also 86A05, **86A10**]
- 90-XX:** 1: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, 62-XX, **90-XX**, 91-XX, 92-XX, 93-XX, 94-XX }
- 90-XX:** 2: 62Pxx Applications [See also **90-XX**, 91-XX, 92-XX]
- 90B10:** 1: 05C38 Paths and cycles [See also **90B10**]
- 90B10:** 2: 68R10 Graph theory (including graph drawing) [See also 05Cxx, **90B10**, 90B35, 90C35]
- 90B18:** 1: 68M10 Network design and communication [See also 68R10, **90B18**]
- 90B18:** 2: 94A05 Communication theory [See also 60G35, **90B18**]
- 90B22:** 1: 60K25 Queueing theory [See also 68M20, **90B22**]
- 90B25:** 1: 62N05 Reliability and life testing [See also **90B25**]
- 90B30:** 1: 60J20 Applications of Markov chains and discrete-time Markov processes on general state spaces (social mobility, learning theory, industrial processes, etc.) [See also **90B30**, 91D10, 91D35, 91E40]
- 90B35:** 1: 68R10 Graph theory (including graph drawing) [See also 05Cxx, 90B10, **90B35**, 90C35]
- 90B50:** 1: 62Cxx Decision theory [See also **90B50**, 91B06; for game theory, see 91A35]
- 90B50:** 2: 91A35 Decision theory for games [See also 62Cxx, 91B06, **90B50**]
- 90B50:** 3: 91B06 Decision theory [See also 62Cxx, **90B50**, 91A35]
- 90B70:** 1: 91D35 Manpower systems [See also 91B40, **90B70**]
- 90Bxx:** 1: 05C82 Small world graphs, complex networks [See also **90Bxx**, 91D30]
- 90Bxx:** 2: 60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.) [See also **90Bxx**]
- 90Bxx:** 3: 60K30 Applications (congestion, allocation, storage, traffic, etc.) [See also **90Bxx**]
- 90Bxx:** 4: 68M20 Performance evaluation; queueing; scheduling [See also 60K25, **90Bxx**]
- 90C10:** 1: 90B80 Discrete location and assignment [See also **90C10**]
- 90C25:** 1: 52A41 Convex functions and convex programs [See also 26B25, **90C25**]
- 90C27:** 1: 05B35 Matroids, geometric lattices [See also 52B40, **90C27**]
- 90C27:** 2: 90C35 Programming involving graphs or networks [See also **90C27**]
- 90C29:** 1: 58E17 Pareto optimality, etc., applications to economics [See also **90C29**]
- 90C30:** 1: 49M37 Methods of nonlinear programming type [See also **90C30**, 65Kxx]
- 90C30:** 2: 65H17 Eigenvalues, eigenvectors [See also 47Hxx, 47Jxx, 58C40, 58E07, **90C30**]
- 90C30:** 3: 65H20 Global methods, including homotopy approaches [See also 58C30, **90C30**]
- 90C31:** 1: 49K40 Sensitivity, stability, well-posedness [See also **90C31**]
- 90C31:** 2: 90B50 Management decision making, including multiple objectives [See also **90C31**, 91A35, 91B06]
- 90C35:** 1: 05Cxx Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15, 82B20, 82C20, **90C35**, 92E10, 94C15 }

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- 90C35:** 2: 05C35 Extremal problems [See also **90C35**]
- 90C35:** 3: 05C90 Applications [See also 68R10, 81Q30, 81T15, 82B20, 82C20, **90C35**, 92E10, 94C15]
- 90C35:** 4: 68R10 Graph theory (including graph drawing) [See also 05Cxx, 90B10, 90B35, **90C35**]
- 90C48:** 1: 49J27 Problems in abstract spaces [See also **90C48**, 93C25]
- 90C48:** 2: 49K27 Problems in abstract spaces [See also **90C48**, 93C25]
- 90C56:** 1: 49J52 Nonsmooth analysis [See also 46G05, 58C50, **90C56**]
- 90C90:** 1: 49N90 Applications of optimal control and differential games [See also **90C90**, 93C95]
- 90C90:** 2: 49Q10 Optimization of shapes other than minimal surfaces [See also **90C90**]
- 90Cxx:** 1: 26E25 Set-valued functions [See also 28B20, 54C60] { For nonsmooth analysis, see 49J52, 58Cxx, **90Cxx** }
- 90Cxx:** 2: 49-XX Calculus of variations and optimal control; optimization [See also 34H05, 34K35, 65Kxx, **90Cxx**, 93-XX]
- 90Cxx:** 3: 49Mxx Numerical methods [See also **90Cxx**, 65Kxx]
- 90Cxx:** 4: 65K05 Mathematical programming methods [See also **90Cxx**]
- 91-XX:** 1: 37N25 Dynamical systems in biology [See mainly 92-XX, but also **91-XX**]
- 91-XX:** 2: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, 62-XX, 90-XX, **91-XX**, 92-XX, 93-XX, 94-XX }
- 91-XX:** 3: 62Pxx Applications [See also 90-XX, **91-XX**, 92-XX]
- 91A35:** 1: 62Cxx Decision theory [See also 90B50, 91B06; for game theory, see **91A35**]
- 91A35:** 2: 90B50 Management decision making, including multiple objectives [See also 90C31, **91A35**, 91B06]
- 91A35:** 3: 91B06 Decision theory [See also 62Cxx, 90B50, **91A35**]
- 91A43:** 1: 05C57 Games on graphs [See also **91A43**, 91A46]
- 91A46:** 1: 05C57 Games on graphs [See also 91A43, **91A46**]
- 91A60:** 1: 60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15, **91A60**]
- 91A60:** 2: 62L15 Optimal stopping [See also 60G40, **91A60**]
- 91B06:** 1: 62Cxx Decision theory [See also 90B50, **91B06**; for game theory, see 91A35]
- 91B06:** 2: 90B50 Management decision making, including multiple objectives [See also 90C31, 91A35, **91B06**]
- 91B06:** 3: 91A35 Decision theory for games [See also 62Cxx, **91B06**, 90B50]
- 91B14:** 1: 28B20 Set-valued set functions and measures; integration of set-valued functions; measurable selections [See also 26E25, 54C60, 54C65, **91B14**]
- 91B16:** 1: 91A30 Utility theory for games [See also **91B16**]
- 91B40:** 1: 91D35 Manpower systems [See also **91B40**, 90B70]
- 91B60:** 1: 90B60 Marketing, advertising [See also **91B60**]
- 91B72:** 1: 91D25 Spatial models [See also **91B72**]
- 91B84:** 1: 62M10 Time series, auto-correlation, regression, etc. [See also **91B84**]
- 91Bxx:** 1: 62P20 Applications to economics [See also **91Bxx**]
- 91D10:** 1: 60J20 Applications of Markov chains and discrete-time Markov processes on general state spaces (social mobility, learning theory, industrial processes, etc.) [See also 90B30, **91D10**, 91D35, 91E40]
- 91D30:** 1: 05C82 Small world graphs, complex networks [See also 90Bxx, **91D30**]
- 91D30:** 2: 78A70 Biological applications [See also **91D30**, 92C30]
- 91D35:** 1: 60J20 Applications of Markov chains and discrete-time Markov processes on general state spaces (social mobility, learning theory, industrial processes, etc.) [See also 90B30, 91D10, **91D35**, 91E40]
- 91D35:** 2: 90B70 Theory of organizations, manpower planning [See also **91D35**]
- 91E40:** 1: 60J20 Applications of Markov chains and discrete-time Markov processes on general state spaces (social mobility, learning theory, industrial processes, etc.) [See also 90B30, 91D10, 91D35, **91E40**]
- 91E40:** 2: 68T05 Learning and adaptive systems [See also 68Q32, **91E40**]
- 91E40:** 3: 82C32 Neural nets [See also 68T05, **91E40**, 92B20]
- 91F20:** 1: 03B65 Logic of natural languages [See also 68T50, **91F20**]
- 92-XX:** 1: 37N25 Dynamical systems in biology [See mainly **92-XX**, but also 91-XX]
- 92-XX:** 2: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, 62-XX, 90-XX, 91-XX, **92-XX**, 93-XX, 94-XX }
- 92-XX:** 3: 62Pxx Applications [See also 90-XX, 91-XX, **92-XX**]
- 92B20:** 1: 82C32 Neural nets [See also 68T05, 91E40, **92B20**]
- 92C10:** 1: 74L15 Biomechanical solid mechanics [See also **92C10**]
- 92C30:** 1: 78A70 Biological applications [See also 91D30, **92C30**]
- 92C35:** 1: 76Z05 Physiological flows [See also **92C35**]
- 92C40:** 1: 92Exx Chemistry { For biochemistry, see **92C40** }
- 92C45:** 1: 80A30 Chemical kinetics [See also 76V05, **92C45**, 92E20]
- 92C45:** 2: 80A32 Chemically reacting flows [See also **92C45**, 92E20]

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- 92C55:** 1: 44A12 Radon transform [See also **92C55**]
- 92Cxx:** 1: 76Zxx Biological fluid mechanics [See also 74F10, 74L15, **92Cxx**]
- 92Dxx:** 1: 60J70 Applications of Brownian motions and diffusion theory (population genetics, absorption problems, etc.) [See also **92Dxx**]
- 92Dxx:** 2: 60J85 Applications of branching processes [See also **92Dxx**]
- 92E10:** 1: 05Cxx Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15, 82B20, 82C20, 90C35, **92E10**, 94C15 }
- 92E10:** 2: 05C90 Applications [See also 68R10, 81Q30, 81T15, 82B20, 82C20, 90C35, **92E10**, 94C15]
- 92E10:** 3: 81V55 Molecular physics [See also **92E10**]
- 92E20:** 1: 80A30 Chemical kinetics [See also 76V05, 92C45, **92E20**]
- 92E20:** 2: 80A32 Chemically reacting flows [See also 92C45, **92E20**]
- 92E20:** 3: 82B35 Irreversible thermodynamics, including Onsager-Machlup theory [See also **92E20**]
- 92Exx:** 1: 80A50 Chemistry (general) [See mainly **92Exx**]
- 93-XX:** 1: 49-XX Calculus of variations and optimal control; optimization [See also 34H05, 34K35, 65Kxx, 90Cxx, **93-XX**]
- 93-XX:** 2: 58E25 Applications to control theory [See also 49-XX, **93-XX**]
- 93-XX:** 3: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, 62-XX, 90-XX, 91-XX, 92-XX, **93-XX**, 94-XX }
- 93B05:** 1: 57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also 49Qxx, 37C10, **93B05**]
- 93B40:** 1: 65K10 Optimization and variational techniques [See also 49Mxx, **93B40**]
- 93B52:** 1: 49N35 Optimal feedback synthesis [See also **93B52**]
- 93C05:** 1: 49N05 Linear optimal control problems [See also **93C05**]
- 93C15:** 1: 34Hxx Control problems [See also 49J15, 49K15, **93C15**]
- 93C15:** 2: 34H05 Control problems [See also 49J15, 49K15, **93C15**]
- 93C20:** 1: 76B75 Flow control and optimization [See also 49Q10, **93C20**, 93C95]
- 93C20:** 2: 76D55 Flow control and optimization [See also 49Q10, **93C20**, 93C95]
- 93C23:** 1: 34K35 Control problems [See also 49J21, 49K21, **93C23**]
- 93C25:** 1: 49J27 Problems in abstract spaces [See also 90C48, **93C25**]
- 93C25:** 2: 49K27 Problems in abstract spaces [See also 90C48, **93C25**]
- 93C41:** 1: 49N30 Problems with incomplete information [See also **93C41**]
- 93C85:** 1: 68T40 Robotics [See also **93C85**]
- 93C85:** 2: 70B15 Mechanisms, robots [See also 68T40, 70Q05, **93C85**]
- 93C85:** 3: 70E60 Robot dynamics and control [See also 68T40, 70Q05, **93C85**]
- 93C95:** 1: 49N90 Applications of optimal control and differential games [See also 90C90, **93C95**]
- 93C95:** 2: 76B75 Flow control and optimization [See also 49Q10, 93C20, **93C95**]
- 93C95:** 3: 76D55 Flow control and optimization [See also 49Q10, 93C20, **93C95**]
- 93Cxx:** 1: 74M05 Control, switches and devices ("smart materials") [See also **93Cxx**]
- 93Dxx:** 1: 34Dxx Stability theory [See also 37C75, **93Dxx**]
- 93E03:** 1: 34Fxx Equations and systems with randomness [See also 34K50, 60H10, **93E03**]
- 93E03:** 2: 34F05 Equations and systems with randomness [See also 34K50, 60H10, **93E03**]
- 93E10:** 1: 60G35 Signal detection and filtering [See also 62M20, **93E10**, 93E11, 94Axx]
- 93E10:** 2: 62M20 Prediction [See also 60G25]; filtering [See also 60G35, **93E10**, 93E11]
- 93E11:** 1: 60G35 Signal detection and filtering [See also 62M20, 93E10, **93E11**, 94Axx]
- 93E11:** 2: 62M20 Prediction [See also 60G25]; filtering [See also 60G35, 93E10, **93E11**]
- 93E20:** 1: 49J55 Problems involving randomness [See also **93E20**]
- 93E20:** 2: 49K45 Problems involving randomness [See also **93E20**]
- 93Exx:** 1: 37Hxx Random dynamical systems [See also 15B52, 34D08, 34F05, 47B80, 70L05, 82C05, **93Exx**]
- 94-XX:** 1: 60-XX Probability theory and stochastic processes { For additional applications, see 11Kxx, 62-XX, 90-XX, 91-XX, 92-XX, **93-XX**, **94-XX** }
- 94A05:** 1: 90B18 Communication networks [See also 68M10, **94A05**]
- 94A15:** 1: 81P45 Quantum information, communication, networks [see also **94A15**, 94A17]
- 94A17:** 1: 62B10 Information-theoretic topics [See also **94A17**]
- 94A17:** 2: 81P45 Quantum information, communication, networks [see also 94A15, **94A17**]
- 94A45:** 1: 68Q45 Formal languages and automata [See also 03D05, 68Q70, **94A45**]
- 94A60:** 1: 14G50 Applications to coding theory and cryptography [See also **94A60**, 94B27, 94B40]
- 94A60:** 2: 68P25 Data encryption [See also **94A60**, 81P94]
- 94A60:** 3: 81P94 Quantum cryptography [See also **94A60**]
- 94Axx:** 1: 60G35 Signal detection and filtering [See also 62M20, 93E10, 93E11, **94Axx**]
- 94Axx:** 2: 68P30 Coding and information theory (compaction, compression, models of communication,

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encoding schemes, etc.) [See also **94Axx**]

- 94B05:** 1: 51E22 Linear codes and caps in Galois spaces [See also **94B05**]
- 94B27:** 1: 14G50 Applications to coding theory and cryptography [See also 94A60, **94B27**, 94B40]
- 94B40:** 1: 14G50 Applications to coding theory and cryptography [See also 94A60, 94B27, **94B40**]
- 94B75:** 1: 11Hxx Geometry of numbers { For applications in coding theory, see **94B75** }
- 94C10:** 1: 06E30 Boolean functions [See also **94C10**]
- 94C12:** 1: 68M15 Reliability, testing and fault tolerance [See also **94C12**]
- 94C15:** 1: 05Cxx Graph theory { For applications of graphs, see 68R10, 81Q30, 81T15, 82B20, 82C20, 90C35, 92E10, **94C15** }
- 94C15:** 2: 05C90 Applications [See also 68R10, 81Q30, 81T15, 82B20, 82C20, 90C35, 92E10, **94C15**]
- 94C30:** 1: 05Bxx Designs and configurations { For applications of design theory, see **94C30** }
- 94Cxx:** 1: 92B20 Neural networks, artificial life and related topics [See also 68T05, 82C32, **94Cxx**]
- 94D05:** 1: 03B52 Fuzzy logic; logic of vagueness [See also 68T27, 68T37, **94D05**]
- 94D05:** 2: 28E10 Fuzzy measure theory [See also 03E72, 26E50, **94D05**]
- 97A20:** 1: 00A08 Recreational mathematics [See also **97A20**]
- 97C70:** 1: 97B50 Teacher education { For research aspects, see **97C70** }
- 97Cxx:** 1: 00A35 Methodology of mathematics, didactics [See also **97Cxx**, 97Dxx]
- 97Cxx:** 2: 97D50 Teaching problem solving and heuristic strategies { For research aspects, see **97Cxx** }
- 97Dxx:** 1: 00A35 Methodology of mathematics, didactics [See also 97Cxx, **97Dxx**]

Cross references with NO TARGET are: ['97Cxx', '97Dxx', '68-XX', '08Axx', '08Bxx', '12Lxx', '03Hxx', '06Exx', '06Bxx', '11Txx', '33Cxx', '33Dxx', '51Exx', '90Bxx', '14Nxx', '54-XX', '20Mxx', '03Cxx', '33-XX', '11Gxx', '14Gxx', '19Gxx', '14Lxx', '20Gxx', '14Kxx', '32Nxx', '11Dxx', '11Nxx', '28Dxx', '11Jxx', '30Bxx', '11Fxx', '12Gxx', '16Hxx', '16Kxx', '14-XX', '19Fxx', '37Pxx', '11Exx', '13Nxx', '39Axx', '34Mxx', '16Exx', '18Gxx', '32Gxx', '19Axx', '14Pxx', '14Qxx', '13Dxx', '13-XX', '32Sxx', '58Kxx', '19Exx', '32Lxx', '13Hxx', '30Fxx', '32Jxx', '51-XX', '12Dxx', '13Pxx', '20Hxx', '18-XX', '16Gxx', '13Mxx', '15-XX', '16Nxx', '46Kxx', '17Bxx', '13Jxx', '17-XX', '22Exx', '20Jxx', '57Txx', '55Nxx', '55Uxx', '03-XX', '68Qxx', '06-XX', '20Axx', '55Rxx', '57Pxx', '12-XX', '14Cxx', '19-XX', '55Txx', '14Fxx', '05Bxx', '57Sxx', '57Mxx', '60Bxx', '58-XX', '43-XX', '12Jxx', '46Lxx', '34-XX', '35-XX', '37Axx', '37Bxx', '37Cxx', '37Exx', '28-XX', '12Exx', '58Cxx', '90Cxx', '37Fxx', '22Axx', '60Fxx', '42-XX', '39-XX', '45Exx', '46Exx', '46Jxx', '14Hxx', '14Jxx', '58Bxx', '53Cxx', '42Cxx', '05Axx', '11-XX', '44-XX', '65Lxx', '34Lxx', '37-XX', '37Gxx', '37Dxx', '93Dxx', '37Kxx', '47Dxx', '47Hxx', '47Jxx', '34Gxx', '60Hxx', '30Dxx', '65Mxx', '65Nxx', '74Qxx', '58Hxx', '31Axx', '31Bxx', '35Pxx', '35Bxx', '35Dxx', '47Axx', '47Bxx', '58Jxx', '32Wxx', '45Kxx', '46Gxx', '34Cxx', '34Dxx', '70-XX', '22Fxx', '11Kxx', '82Cxx', '93Exx', '53Dxx', '70Fxx', '70Hxx', '35Axx', '35Qxx', '65Pxx', '70Kxx', '76-XX', '74Hxx', '92-XX', '91-XX', '26Dxx', '65Dxx', '22Dxx', '46Mxx', '65Rxx', '57Nxx', '68Rxx', '46Txx', '28Bxx', '32-XX', '16-XX', '47Lxx', '37Lxx', '19Kxx', '18Fxx', '32Cxx', '47Nxx', '65Jxx', '47Sxx', '58Dxx', '53Axx', '28Cxx', '60-XX', '46Fxx', '81Uxx', '60Jxx', '34Bxx', '45Jxx', '35Sxx', '31-XX', '45Gxx', '58Exx', '46Nxx', '46Sxx', '65Kxx', '93-XX', '12Kxx', '06Cxx', '57-XX', '46Bxx', '05Cxx', '52Cxx', '65Yxx', '68Uxx', '11Hxx', '57Rxx', '58Axx', '51Lxx', '37Jxx', '70Gxx', '03Exx', '26-XX', '55Mxx', '22-XX', '19Lxx', '32Qxx', '49Qxx', '32Fxx', '46-XX', '26Exx', '49-XX', '35Nxx', '35Lxx', '62-XX', '90-XX', '94-XX', '62Exx', '62Hxx', '94Axx', '31Cxx', '92Dxx', '60Exx', '91Bxx', '41-XX', '65Fxx', '65Hxx', '49Mxx', '37Mxx', '65Cxx', '65-XX', '11Yxx', '82-XX', '60Gxx', '78-XX', '81Txx', '83-XX', '86-XX', '93Cxx', '80Axx', '74Axx', '74-XX', '76Rxx', '92Cxx', '74Nxx', '92Exx', '70Sxx', '83Cxx', '83Exx', '80-XX', '76Bxx', '62Cxx', '94Cxx', '01-XX']