math

Several complex variables and analytic spaces

Non-Archimedean analysis (should also be assigned at least one other classification number from Section 32-XX describing the type of problem)
- Non-Archimedean analysis (should also be assigned at least one other classification number from Section 32-XX describing the type of problem)

Holomorphic functions of several complex variables
- Normal families of holomorphic functions, mappings of several complex variables, and related topics (taut manifolds etc.)
- Other generalizations of function theory of one complex variable (should also be assigned at least one classification number from Section 30-XX)
- Other spaces of holomorphic functions of several complex variables (e.g., bounded mean oscillation (BMOA), vanishing mean oscillation (VMOA))
- Integral representations, constructed kernels (e.g., Cauchy, Fantappiè-type kernels)
- Multifunctions of several complex variables
- Nevanlinna theory; growth estimates; other inequalities of several complex variables
- Functional analysis techniques applied to functions of several complex variables
- Residues for several complex variables
- H^p-spaces, Nevanlinna spaces of functions in several complex variables
- Boundary behavior of holomorphic functions of several complex variables
- Banach algebra techniques applied to functions of several complex variables
- Integral representations; canonical kernels (Szegő, Bergman, etc.)
- Polynomials and rational functions of several complex variables
- Zero sets of holomorphic functions of several complex variables
- Power series, series of functions of several complex variables
- Bloch functions, normal functions of several complex variables
- Algebras of holomorphic functions of several complex variables
- Singular integrals of functions in several complex variables
- Special families of functions of several complex variables
- Bergman spaces of functions in several complex variables
- Holomorphic functions of several complex variables
- Entire functions of several complex variables
- Meromorphic functions of several complex variables
- Harmonic analysis of several complex variables
- Hyperfunctions

Holomorphic mappings and correspondences
- Iteration of holomorphic maps, fixed points of holomorphic maps and related problems for several complex variables
- Holomorphic mappings, (holomorphic) embeddings and related questions in several complex variables
- Picard-type theorems and generalizations for several complex variables
- Boundary uniqueness of mappings in several complex variables
- Boundary regularity of mappings in several complex variables
- Proper holomorphic mappings, finiteness theorems
- Meromorphic mappings in several complex variables
- Value distribution theory in higher dimensions

Holomorphic convexity
- Holomorphic, polynomial and rational approximation, and interpolation in several complex variables; Runge pairs
- Polynomial convexity, rational convexity, meromorphic convexity in several complex variables
- Global boundary behavior of holomorphic functions of several complex variables
- Holomorphically convex complex spaces, reduction theory
- Stein spaces, Stein manifolds
- The Levi problem

Complex singularities
- Topological aspects of complex singularities: Lefschetz theorems, topological classification, invariants
- Stratifications; constructible sheaves; intersection cohomology (complex-analytic aspects)
- Monodromy; relations with differential equations and D-modules (complex-analytic aspects)
- Milnor fibration; relations with knot theory
- Equisingularity (topological and analytic)
- Relations with arrangements of hyperplanes
- Other operations on complex singularities
- Modifications; resolution of singularities (complex-analytic aspects)
- Global theory of complex singularities; cohomological properties
- Mixed Hodge theory of singular varieties (complex-analytic aspects)
- Invariants of analytic local rings
- Deformations of complex singularities; vanishing cycles
- Singularities of holomorphic vector fields and foliations
- Local complex singularities
- Complex surface and hypersurface singularities

Deformations of analytic structures
- Moduli and deformations for ordinary differential equations (e.g., Knizhnik-Zamolodchikov equation)
- Moduli of Riemann surfaces, Teichmüller theory (complex-analytic aspects in several variables)
- Deformations of submanifolds and subspaces
- Applications of deformations of analytic structures to the sciences
- Deformations of complex structures
- Complex-analytic moduli problems
- Period matrices, variation of Hodge structure; degenerations
- Deformations of fiber bundles
- Deformations of special (e.g., CR) structures

Local analytic geometry
- Triangulation and topological properties of semi-analytic andsubanalytic sets, and related questions
- Analytic algebras and generalizations, preparation theorems
- Analytic subsets of affine space
- Semi-analytic sets, subanalytic sets, and generalizations
- Germs of analytic sets, local parametrization

Complex manifolds
- Special domains (Reinhardt, Hartogs, circular, tube, etc.) in $\mathbb{C}^n$ and complex manifolds
- Calabi-Yau theory (complex-analytic aspects)
- Notions of stability for complex manifolds
- Embedding theorems for complex manifolds
- Topological aspects of complex manifolds
- Negative curvature complex manifolds
- Positive curvature complex manifolds
- Uniformization of complex manifolds
- Oka principle and Oka manifolds
- Complex manifolds as subdomains of Euclidean space
- Kähler-Einstein manifolds
- Hyperbolic and Kobayashi hyperbolic manifolds
- Almost complex manifolds
- Pseudoholomorphic curves
- Classification theorems for complex manifolds
- Kähler manifolds
- Stein manifolds

Complex spaces with a group of automorphisms
- Hermitian symmetric spaces, bounded symmetric domains, Jordan algebras (complex-analytic aspects)
- Automorphism groups of other complex spaces
- Almost homogeneous manifolds and spaces
- Automorphism groups of $\mathbb{C}^n$ and affine manifolds
- Complex vector fields, holomorphic foliations, $\mathbb{C}$-actions
- Homogeneous complex manifolds
- Complex Lie groups, group actions on complex spaces

Computational methods for problems pertaining to several complex variables and analytic spaces

History of several complex variables and analytic spaces

Holomorphic fiber spaces
- Sheaves and cohomology of sections of holomorphic vector bundles, general results
- Holomorphic bundles and generalizations
- Twistor theory, double fibrations (complex-analytic aspects)
- Applications of holomorphic fiber spaces to the sciences
- Vanishing theorems
- Bundle convexity

Differential operators in several variables
- $\bar{\partial}_b$ and $\bar{\partial}_b$-Neumann operators
- Heat kernels in several complex variables
- Other partial differential equations of complex analysis in several variables
- $\bar{\partial}$ and $\bar{\partial}$-Neumann operators
- Complex Monge-Ampère operators
- Pseudodifferential operators in several complex variables

Analytic spaces
- Real-analytic sets, complex Nash functions
- Analytic sheaves and cohomology groups
- Embedding of real-analytic manifolds
- Duality theorems for analytic spaces
- Local cohomology of analytic spaces
- Applications of analytic spaces to physics and other areas of science
- Analytic subsets and submanifolds
- Sheaves of differential operators and their modules, D-modules
- Embedding of analytic spaces
- Topology of analytic spaces
- The Levi problem in complex spaces; generalizations
- Integration on analytic sets and spaces, currents
- Real-analytic manifolds, real-analytic spaces
- Normal analytic spaces
- Complex supergeometry
- Complex spaces

Automorphic functions
- Automorphic functions in symmetric domains
- General theory of automorphic functions of several complex variables
- Automorphic forms in several complex variables

Generalizations of analytic spaces
- Holomorphic maps with infinite-dimensional arguments or values
- Banach analytic manifolds and spaces
- Differentiable functions on analytic spaces, differentiable spaces
- Formal and graded complex spaces

Pluripotential theory
- Removable sets in pluripotential theory
- Plurisubharmonic exhaustion functions
- Plurisubharmonic extremal functions, pluricomplex Green functions
- Capacity theory and generalizations
- General pluripotential theory
- Plurisubharmonic functions and generalizations
- Lelong numbers
- Currents

CR manifolds
- Finite-type conditions on CR manifolds
- Real submanifolds in complex manifolds
- CR manifolds as boundaries of domains
- Extension of functions and other analytic objects from CR manifolds
- CR structures, CR operators, and generalizations
- Embeddings of CR manifolds
- Analysis on CR manifolds
- CR functions

Geometric convexity in several complex variables
- Other notions of convexity in relation to several complex variables
- Invariant metrics and pseudodistances in several complex variables
- Analytical consequences of geometric convexity (vanishing theorems, etc.)
- q-convexity, q-concavity
- Finite-type conditions for the boundary of a domain
- Topological consequences of geometric convexity

Compact analytic spaces
- Compactification of analytic spaces
- Transcendental methods of algebraic geometry (complex-analytic aspects)
- Compact Kähler manifolds: generalizations, classification
- Applications of compact analytic spaces to the sciences
- Algebraic dependence theorems
- Compact complex 3-folds
- Compact complex n-folds
- Compact complex surfaces

Pseudoconvex domains
- Geometric and analytic invariants on weakly pseudoconvex boundaries
- Strongly pseudoconvex domains
- Domains of holomorphy
- Exhaustion functions
- Finite-type domains
- Peak functions
- Worm domains

Analytic continuation
- Continuation of analytic objects in several complex variables
- Removable singularities in several complex variables
- Envelopes of holomorphy
- Domains of holomorphy
- Riemann domains

Ordinary differential equations

General theory for ordinary differential equations
- Generalized ordinary differential equations (measure-differential equations, set-valued differential equations, etc.)
- Analytical theory of ordinary differential equations: series, transformations, transforms, operational calculus, etc.
- Initial value problems, existence, uniqueness, continuous dependence and continuation of solutions to ordinary differential equations
- Fractional ordinary differential equations and fractional differential inclusions
- Implicit ordinary differential equations, differential-algebraic equations
- Ordinary lattice differential equations
- Theoretical approximation of solutions to ordinary differential equations
- Fuzzy ordinary differential equations
- Nonlinear ordinary differential equations and systems, general theory
- Explicit solutions, first integrals of ordinary differential equations
- Differential inequalities involving functions of a single real variable
- Ordinary differential inclusions
- Inverse problems involving ordinary differential equations
- Linear ordinary differential equations and systems, general
- Geometric methods in ordinary differential equations
- Ordinary differential equations of infinite order
- Hybrid systems of ordinary differential equations
- Ordinary differential equations with impulses
- Discontinuous ordinary differential equations

Ordinary differential equations in the complex domain
- Stokes phenomena and connection problems (linear and nonlinear) for ordinary differential equations in the complex domain
- Painlevé and other special ordinary differential equations in the complex domain; classification, hierarchies
- Formal solutions and transform techniques for ordinary differential equations in the complex domain
- Algebraic aspects (differential-algebraic, hypertranscendence, group-theoretical) of ordinary differential equations in the complex domain
- Topological structure of trajectories of ordinary differential equations in the complex domain
- Singular perturbation problems for ordinary differential equations in the complex domain (complex WKB, turning points, steepest descent)
- Asymptotics and summation methods for ordinary differential equations in the complex domain
- Singularities, monodromy and local behavior of solutions to ordinary differential equations in the complex domain, normal forms
- Entire and meromorphic solutions to ordinary differential equations in the complex domain
- Oscillation, growth of solutions to ordinary differential equations in the complex domain
- Inverse problems (Riemann-Hilbert, inverse differential Galois, etc.) for ordinary differential equations in the complex domain
- Isomonodromic deformations for ordinary differential equations in the complex domain
- Nonlinear ordinary differential equations and systems in the complex domain
- Spectral theory for ordinary differential operators in the complex domain
- Linear ordinary differential equations and systems in the complex domain
- Ordinary differential equations on complex manifolds

Functional-differential equations (including equations with delayed, advanced or state-dependent argument)
- Transformation and reduction of functional-differential equations and systems, normal forms
- Qualitative investigation and simulation of models involving functional-differential equations
- Growth, boundedness, comparison of solutions to functional-differential equations
- Stochastic functional-differential equations
- Almost and pseudo-almost periodic solutions to functional-differential equations
- Implicit functional-differential equations
- Lattice functional-differential equations
- Neutral functional-differential equations
- Linear functional-differential equations
- Complex (chaotic) behavior of solutions to functional-differential equations
- Fuzzy functional-differential equations
- Theoretical approximation of solutions to functional-differential equations
- Heteroclinic and homoclinic orbits of functional-differential equations
- Functional-differential inequalities
- Functional-differential inclusions
- Symmetries, invariants of functional-differential equations
- General theory of functional-differential equations
- Spectral theory of functional-differential operators
- Boundary value problems for functional-differential equations
- Oscillation theory of functional-differential equations
- Periodic solutions to functional-differential equations
- Bifurcation theory of functional-differential equations
- Invariant manifolds of functional-differential equations
- Stability theory of functional-differential equations
- Stationary solutions of functional-differential equations
- Synchronization of functional-differential equations
- Asymptotic theory of functional-differential equations
- Singular perturbations of functional-differential equations
- Perturbations of functional-differential equations
- Inverse problems for functional-differential equations
- Averaging for functional-differential equations
- Hybrid systems of functional-differential equations
- Control problems for functional-differential equations
- Functional-differential equations with fractional derivatives
- Discontinuous functional-differential equations
- Functional-differential equations on time scales or measure chains
- Functional-differential equations with state-dependent arguments
- Functional-differential equations in the complex domain
- Functional-differential equations in abstract spaces
- Functional-differential equations with impulses

Qualitative theory for ordinary differential equations
- Theory of limit cycles of polynomial and analytic vector fields (existence, uniqueness, bounds, Hilbert's 16th problem and ramifications) for ordinary differential equations
- Topological structure of integral curves, singular points, limit cycles of ordinary differential equations
- Oscillation theory, zeros, disconjugacy and comparison theory for ordinary differential equations
- Ordinary differential equations and connections with real algebraic geometry (fewnomials, desingularization, zeros of abelian integrals, etc.)
- Transformation and reduction of ordinary differential equations and systems, normal forms
- Nonlinear oscillations and coupled oscillators for ordinary differential equations
- Almost and pseudo-almost periodic solutions to ordinary differential equations
- Qualitative investigation and simulation of ordinary differential equation models
- Equivalence and asymptotic equivalence of ordinary differential equations
- Homoclinic and heteroclinic solutions to ordinary differential equations
- Complex behavior and chaotic systems of ordinary differential equations
- Growth and boundedness of solutions to ordinary differential equations
- Monotone systems involving ordinary differential equations
- Symmetries, invariants of ordinary differential equations
- Bifurcation theory for ordinary differential equations
- Periodic solutions to ordinary differential equations
- Relaxation oscillations for ordinary differential equations
- Ordinary differential equations and systems on manifolds
- Invariant manifolds for ordinary differential equations
- Multifrequency systems of ordinary differential equations
- Averaging method for ordinary differential equations
- Hysteresis for ordinary differential equations

Ordinary differential operators
- Asymptotic distribution of eigenvalues, asymptotic theory of eigenfunctions for ordinary differential operators
- Numerical approximation of eigenvalues and of other parts of the spectrum of ordinary differential operators
- Eigenfunctions, eigenfunction expansions, completeness of eigenfunctions of ordinary differential operators
- Eigenvalues, estimation of eigenvalues, upper and lower bounds of ordinary differential operators
- Particular ordinary differential operators (Dirac, one-dimensional Schrödinger, etc.)
- Scattering theory, inverse scattering involving ordinary differential operators
- Nonlinear ordinary differential operators
- General spectral theory of ordinary differential operators

History of ordinary differential equations

Boundary value problems for ordinary differential equations
- Linear boundary value problems for ordinary differential equations with nonlinear dependence on the spectral parameter
- Positive solutions to nonlinear boundary value problems for ordinary differential equations
- Boundary value problems on infinite intervals for ordinary differential equations
- Parameter dependent boundary value problems for ordinary differential equations
- Nonlocal and multipoint boundary value problems for ordinary differential equations
- Boundary value problems on graphs and networks for ordinary differential equations
- Singular nonlinear boundary value problems for ordinary differential equations
- Applications of boundary value problems involving ordinary differential equations
- Special ordinary differential equations (Mathieu, Hill, Bessel, etc.)
- Boundary value problems with impulses for ordinary differential equations
- Nonlinear boundary value problems for ordinary differential equations
- Weyl theory and its generalizations for ordinary differential equations
- Linear boundary value problems for ordinary differential equations
- Boundary eigenvalue problems for ordinary differential equations
- Green's functions for ordinary differential equations
- Sturm-Liouville theory

Asymptotic theory for ordinary differential equations
- Singular perturbations, turning point theory, WKB methods for ordinary differential equations
- Perturbations, asymptotics of solutions to ordinary differential equations
- Singular perturbations, general theory for ordinary differential equations
- Methods of nonstandard analysis for ordinary differential equations
- Asymptotic expansions of solutions to ordinary differential equations
- Multiple scale methods for ordinary differential equations
- Canard solutions to ordinary differential equations

Ordinary differential equations and systems with randomness
- Bifurcation of solutions to ordinary differential equations involving randomness
- Resonance phenomena for ordinary differential equations involving randomness
- Ordinary differential equations and systems with randomness

Stability theory for ordinary differential equations
- Structural stability and analogous concepts of solutions to ordinary differential equations
- Characteristic and Lyapunov exponents of ordinary differential equations
- Stability of manifolds of solutions to ordinary differential equations
- Asymptotic properties of solutions to ordinary differential equations
- Dichotomy, trichotomy of solutions to ordinary differential equations
- Global stability of solutions to ordinary differential equations
- Synchronization of solutions to ordinary differential equations
- Singular perturbations of ordinary differential equations
- Stability of solutions to ordinary differential equations
- Attractors of solutions to ordinary differential equations
- Perturbations of ordinary differential equations

Control problems including ordinary differential equations
- Chaos control for problems involving ordinary differential equations
- Control problems involving ordinary differential equations
- Stabilization of solutions to ordinary differential equations
- Bifurcation control of ordinary differential equations

Dynamic equations on time scales or measure chains
- Dynamic equations on time scales or measure chains

Differential equations in abstract spaces
- Linear differential equations in abstract spaces
- Nonlinear differential equations in abstract spaces
- Evolution inclusions

Functions of a complex variable

Geometric function theory
- Special classes of univalent and multivalent functions of one complex variable (starlike, convex, bounded rotation, etc.)
- Maximum principle, Schwarz's lemma, Lindelöf principle, analogues and generalizations; subordination
- Zeros of polynomials, rational functions, and other analytic functions of one complex variable (e.g., zeros of functions with bounded Dirichlet integral)
- Coefficient problems for univalent and multivalent functions of one complex variable
- Quasiconformal mappings in the complex plane
- Extremal problems for conformal and quasiconformal mappings, variational methods
- General theory of univalent and multivalent functions of one complex variable
- Quasiconformal mappings in $\mathbb{R}^n$, other generalizations
- Extremal problems for conformal and quasiconformal mappings, other methods
- Conformal mappings of special domains
- General theory of conformal mappings
- Polynomials and rational functions of one complex variable
- Schwarz-Christoffel-type mappings
- Kernel functions in one complex variable and applications
- Capacity and harmonic measure in the complex plane
- Covering theorems in conformal mapping theory

Miscellaneous topics of analysis in the complex plane
- Integration, integrals of Cauchy type, integral representations of analytic functions in the complex plane
- Boundary value problems in the complex plane
- Approximation in the complex plane
- Moment problems and interpolation problems in the complex plane
- Asymptotic representations in the complex plane

Entire and meromorphic functions of one complex variable, and related topics
- Functional equations in the complex plane, iteration and composition of analytic functions of one complex variable
- Value distribution of meromorphic functions of one complex variable, Nevanlinna theory
- Cluster sets, prime ends, boundary behavior
- Representations of entire functions of one complex variable by series and integrals
- Special classes of entire functions of one complex variable and growth estimates
- Quasi-analytic and other classes of functions of one complex variable
- Meromorphic functions of one complex variable, general theory
- Entire functions of one complex variable, general theory
- Normal functions of one complex variable, normal families

Riemann surfaces
- Fuchsian groups and automorphic functions (aspects of compact Riemann surfaces and uniformization)
- Compact Riemann surfaces and uniformization
- Ideal boundary theory for Riemann surfaces
- Classification theory of Riemann surfaces
- Teichmüller theory for Riemann surfaces
- Harmonic functions on Riemann surfaces
- Kleinian groups (aspects of compact Riemann surfaces and uniformization)
- Differentials on Riemann surfaces
- Conformal metrics (hyperbolic, Poincaré, distance functions)
- Klein surfaces

Series expansions of functions of one complex variable
- Random power series in one complex variable
- Completeness problems, closure of a system of functions of one complex variable
- Dirichlet series, exponential series and other series in one complex variable
- Boundary behavior of power series in one complex variable; over-convergence
- Analytic continuation of functions of one complex variable
- Power series (including lacunary series) in one complex variable
- Continued fractions; complex-analytic aspects

Generalized function theory
- Other generalizations of analytic functions (including abstract-valued functions)
- Generalizations of Bers and Vekua type (pseudoanalytic, p-analytic, etc.)
- Functions of hypercomplex variables and generalized variables
- Non-Archimedean function theory
- Finely holomorphic functions and topological function theory
- Discrete analytic functions

Analysis on metric spaces
- Quasiconformal mappings in metric spaces
- Geometric embeddings of metric spaces
- Inequalities in metric spaces

Computational methods for problems pertaining to functions of a complex variable

History of functions of a complex variable

Spaces and algebras of analytic functions of one complex variable
- Nevanlinna spaces and Smirnov spaces
- Spaces of bounded analytic functions of one complex variable
- Besov spaces and Q_p-spaces
- Bergman spaces and Fock spaces
- Algebras of analytic functions of one complex variable
- de Branges-Rovnyak spaces
- Corona theorems
- Zygmund spaces
- Hardy spaces
- Bloch spaces
- BMO-spaces

Universal holomorphic functions of one complex variable
- Universal functions of one complex variable
- Universal Dirichlet series in one complex variable
- Compositional universality
- Universal Taylor series in one complex variable

General properties of functions of one complex variable
- Monogenic and polygenic functions of one complex variable
- Inequalities in the complex plane

Function theory on the disc
- Inner functions of one complex variable
- Singular inner functions of one complex variable
- Blaschke products

Partial differential equations

General higher-order partial differential equations and systems of higher-order partial differential equations
- Systems of nonlinear higher-order PDEs
- Initial-boundary value problems for systems of nonlinear higher-order PDEs
- Systems of linear higher-order PDEs
- Boundary value problems for systems of linear higher-order PDEs
- Initial-boundary value problems for systems of linear higher-order PDEs
- Boundary value problems for systems of nonlinear higher-order PDEs
- Initial value problems for systems of linear higher-order PDEs
- Initial value problems for systems of nonlinear higher-order PDEs
- Initial-boundary value problems for linear higher-order PDEs
- Initial-boundary value problems for nonlinear higher-order PDEs
- Boundary value problems for linear higher-order PDEs
- Nonlinear higher-order PDEs
- Initial value problems for nonlinear higher-order PDEs
- Boundary value problems for nonlinear higher-order PDEs
- Initial value problems for linear higher-order PDEs
- Linear higher-order PDEs

General first-order partial differential equations and systems of first-order partial differential equations
- Systems of nonlinear first-order PDEs
- Initial-boundary value problems for systems of nonlinear first-order PDEs
- Initial-boundary value problems for systems of linear first-order PDEs
- Boundary value problems for systems of nonlinear first-order PDEs
- Systems of linear first-order PDEs
- Initial value problems for systems of linear first-order PDEs
- Boundary value problems for systems of linear first-order PDEs
- Initial value problems for systems of nonlinear first-order PDEs
- Initial-boundary value problems for linear first-order PDEs
- Initial-boundary value problems for nonlinear first-order PDEs
- Boundary value problems for linear first-order PDEs
- Boundary value problems for nonlinear first-order PDEs
- Initial value problems for linear first-order PDEs
- Nonlinear first-order PDEs
- Initial value problems for nonlinear first-order PDEs
- Hamilton-Jacobi equations
- Linear first-order PDEs

Partial differential equations and systems of partial differential equations with constant coefficients
- Convexity properties of solutions to PDEs and systems of PDEs with constant coefficients
- Initial value problems for PDEs and systems of PDEs with constant coefficients
- Fundamental solutions to PDEs and systems of PDEs with constant coefficients
- General theory of PDEs and systems of PDEs with constant coefficients

Parabolic equations and parabolic systems
- Unilateral problems for nonlinear parabolic equations and variational inequalities with nonlinear parabolic operators
- Unilateral problems for linear parabolic equations and variational inequalities with linear parabolic operators
- Unilateral problems for parabolic systems and systems of variational inequalities with parabolic operators
- Nonlinear initial, boundary and initial-boundary value problems for linear parabolic equations
- Nonlinear initial, boundary and initial-boundary value problems for nonlinear parabolic equations
- Semilinear parabolic equations with Laplacian, bi-Laplacian or poly-Laplacian
- Initial-boundary value problems for second-order parabolic equations
- Initial-boundary value problems for higher-order parabolic equations
- Initial-boundary value problems for second-order parabolic systems
- Initial-boundary value problems for higher-order parabolic systems
- Second-order parabolic equations
- Initial value problems for second-order parabolic equations
- Higher-order parabolic equations
- Initial value problems for higher-order parabolic equations
- Parabolic Monge-Ampère equations
- Quasilinear parabolic equations
- Ultraparabolic equations, pseudoparabolic equations, etc.
- Quasilinear parabolic equations with mean curvature operator
- Second-order parabolic systems
- Higher-order parabolic systems
- Initial value problems for second-order parabolic systems
- Initial value problems for higher-order parabolic systems
- Semilinear parabolic equations
- Degenerate parabolic equations
- Quasilinear parabolic equations with p-Laplacian
- Nonlinear parabolic equations
- Reaction-diffusion equations
- Singular parabolic equations
- Abstract parabolic equations
- Heat equation
- Heat kernel

Elliptic equations and elliptic systems
- Unilateral problems for nonlinear elliptic equations and variational inequalities with nonlinear elliptic operators
- Unilateral problems for linear elliptic equations and variational inequalities with linear elliptic operators
- Unilateral problems for elliptic systems and systems of variational inequalities with elliptic operators
- Schrödinger operator, Schrödinger equation
- Elliptic equations with infinity-Laplacian
- Laplace operator, Helmholtz equation (reduced wave equation), Poisson equation
- Semilinear elliptic equations with Laplacian, bi-Laplacian or poly-Laplacian
- Green's functions for elliptic equations
- Variational methods for elliptic systems
- Boundary values of solutions to elliptic equations and elliptic systems
- Nonlinear boundary value problems for linear elliptic equations
- Nonlinear boundary value problems for nonlinear elliptic equations
- Second-order elliptic equations
- Variational methods for second-order elliptic equations
- Boundary value problems for second-order elliptic equations
- Higher-order elliptic equations
- Variational methods for higher-order elliptic equations
- Boundary value problems for higher-order elliptic equations
- Quasilinear elliptic equations
- Quasilinear elliptic equations with p-Laplacian
- Quasilinear elliptic equations with mean curvature operator
- Second-order elliptic systems
- Higher-order elliptic systems
- Boundary value problems for second-order elliptic systems
- Boundary value problems for higher-order elliptic systems
- Semilinear elliptic equations
- Degenerate elliptic equations
- First-order elliptic systems
- Boundary value problems for first-order elliptic systems
- Nonlinear elliptic equations
- Singular elliptic equations
- Monge-Ampère equations

General topics in partial differential equations
- Inequalities applied to PDEs involving derivatives, differential and integral operators, or integrals
- Microlocal methods and methods of sheaf theory and homological algebra applied to PDEs
- Uniqueness problems for PDEs: global uniqueness, local uniqueness, non-uniqueness
- Theoretical approximation in context of PDEs
- Existence problems for PDEs: global existence, local existence, non-existence
- Other special methods applied to PDEs
- Variational methods applied to PDEs
- Wave front sets in context of PDEs
- Geometric theory, characteristics, transformations in context of PDEs
- Transform methods (e.g., integral transforms) applied to PDEs
- Methods of ordinary differential equations applied to PDEs
- Parametrices in context of PDEs
- Analyticity in context of PDEs
- Singularity in context of PDEs
- Fundamental solutions to PDEs
- Cauchy-Kovalevskaya theorems
- Topological and monotonicity methods applied to PDEs
- Classical solutions to PDEs

Representations of solutions to partial differential equations
- Asymptotic expansions of solutions to PDEs
- Solutions to PDEs in closed form
- Trigonometric solutions to PDEs
- Self-similar solutions to PDEs
- Polynomial solutions to PDEs
- Traveling wave solutions
- Series solutions to PDEs
- Integral representations of solutions to PDEs
- Soliton solutions

History of partial differential equations

Qualitative properties of solutions to partial differential equations
- Dependence of solutions to PDEs on initial and/or boundary data and/or on parameters of PDEs
- Singular perturbations in context of PDEs
- Critical points of functionals in context of PDEs (e.g., energy functionals)
- Asymptotic behavior of solutions to PDEs
- Comparison principles in context of PDEs
- Liouville theorems and Phragmén-Lindelöf theorems in context of PDEs
- Oscillation, zeros of solutions, mean value theorems, etc. in context of PDEs
- Homogenization in context of PDEs; PDEs in media with periodic structure
- Critical exponents in context of PDEs
- Pattern formations in context of PDEs
- A priori estimates in context of PDEs
- Maximum principles in context of PDEs
- Axially symmetric solutions to PDEs
- Perturbations in context of PDEs
- Bifurcations in context of PDEs
- Continuation and prolongation of solutions to PDEs
- Resonance in context of PDEs
- Stability in context of PDEs
- Positive solutions to PDEs
- Periodic solutions to PDEs
- Almost and pseudo-almost periodic solutions to PDEs
- Blow-up in context of PDEs
- Smoothness and regularity of solutions to PDEs
- Entire solutions to PDEs
- Symmetries, invariants, etc. in context of PDEs
- Inertial manifolds
- Attractors

Hyperbolic equations and hyperbolic systems
- Initial-boundary value problems for first-order hyperbolic equations
- Initial-boundary value problems for second-order hyperbolic equations
- Second-order hyperbolic equations
- Initial value problems for second-order hyperbolic equations
- First-order hyperbolic equations
- Initial value problems for first-order hyperbolic equations
- Wave equation

Generalized solutions to partial differential equations
- Viscosity solutions to PDEs
- Strong solutions to PDEs
- Weak solutions to PDEs

Close-to-elliptic equations
- Quasielliptic equations
- Hypoelliptic equations
- Subelliptic equations

Measure and integration

Set functions and measures on spaces with additional structure
- Integration theory via linear functionals (Radon measures, Daniell integrals, etc.), representing set functions and measures
- Set functions and measures and integrals in infinite-dimensional spaces (Wiener measure, Gaussian measure, etc.)
- Set functions and measures on topological groups or semigroups, Haar measures, invariant measures
- Set functions and measures on topological spaces (regularity of measures, etc.)

Set functions, measures and integrals with values in abstract spaces
- Set-valued set functions and measures; integration of set-valued functions; measurable selections
- Set functions, measures and integrals with values in ordered spaces
- Group- or semigroup-valued set functions, measures and integrals
- Vector-valued set functions, measures and integrals

Classical measure theory
- Classes of sets (Borel fields, σ-rings, etc.), measurable sets, Suslin sets, analytic sets
- Measurable and nonmeasurable functions, sequences of measurable functions, modes of convergence
- Spaces of measures, convergence of measures
- Measures on Boolean rings, measure algebras
- Integration and disintegration of measures
- Measures and integrals in product spaces
- Real- or complex-valued set functions
- Abstract differentiation theory, differentiation of set functions
- Integration with respect to measures and other set functions
- Hausdorff and packing measures
- Length, area, volume, other geometric measure theory
- Contents, measures, outer measures, capacities
- Lifting theory
- Fractals

Measure-theoretic ergodic theory
- One-parameter continuous families of measure-preserving transformations
- Measure-preserving transformations
- General groups of measure-preserving transformations
- Entropy and other invariants

Miscellaneous topics in measure theory
- Other connections with logic and set theory
- Nonstandard measure theory
- Fuzzy measure theory

History of measure and integration

Computational methods for problems pertaining to measure and integration

Associative rings and algebras

Chain conditions, growth conditions, and other forms of finiteness for associative rings and algebras
- Chain conditions on other classes of submodules, ideals, subrings, etc.; coherence (associative rings and algebras)
- Growth rate, Gelfand-Kirillov dimension
- Chain conditions on annihilators and summands: Goldie-type conditions
- Finite rings and finite-dimensional associative algebras
- Artinian rings and modules (associative rings and algebras)
- Noetherian rings and modules (associative rings and algebras)
- Localization and associative Noetherian rings

Homological methods in associative algebras
- Homological conditions on associative rings (generalizations of regular, Gorenstein, Cohen-Macaulay rings, etc.)
- (Co)homology of rings and associative algebras (e.g., Hochschild, cyclic, dihedral, etc.)
- von Neumann regular rings and generalizations (associative algebraic aspects)
- Differential graded algebras and applications (associative algebraic aspects)
- Derived categories and associative algebras
- Grothendieck groups, K-theory, etc.
- Semihereditary and hereditary rings, free ideal rings, Sylvester rings, etc.
- Homological functors on modules (Tor, Ext, etc.) in associative algebras
- Syzygies, resolutions, complexes in associative algebras
- Homological dimension in associative algebras

Associative rings and algebras arising under various constructions
- Associative rings determined by universal properties (free algebras, coproducts, adjunction of inverses, etc.)
- Finite generation, finite presentability, normal forms (diamond lemma, term-rewriting)
- Torsion theories; radicals on module categories (associative algebraic aspects)
- Extensions of associative rings by ideals
- Centralizing and normalizing extensions
- Smash products of general Hopf actions
- Associative rings of functions, subdirect products, sheaves of rings
- Rings arising from noncommutative algebraic geometry
- Deformations of associative rings
- Endomorphism rings; matrix rings
- Rings of differential operators (associative algebraic aspects)
- Quadratic and Koszul algebras
- Ordinary and skew polynomial rings and semigroup rings
- Associative rings of fractions and localizations
- Universal enveloping algebras of Lie algebras
- Twisted and skew group rings, crossed products
- Leavitt path algebras
- Group rings

Associative rings and algebras with additional structure
- Valuations, completions, formal power series and related constructions (associative rings and algebras)
- Actions of groups and semigroups; invariant theory (associative rings and algebras)
- Topological and ordered rings and modules
- Derivations, actions of Lie algebras
- Rings with involution; Lie, Jordan and other nonassociative structures
- Filtered associative rings; filtrational and graded techniques
- Graded rings and modules (associative rings and algebras)
- Automorphisms and endomorphisms
- "Super" (or "skew") structure

Radicals and radical properties of associative rings
- General radicals and associative rings
- Jacobson radical, quasimultiplication
- Prime and semiprime associative rings
- Nil and nilpotent radicals, sets, ideals, associative rings

Modules, bimodules and ideals in associative algebras
- Structure and classification for modules, bimodules and ideals (except as in 16Gxx), direct sum decomposition and cancellation in associative algebras)
- Module categories in associative algebras
- Bimodules in associative algebras
- Simple and semisimple modules, primitive rings and ideals in associative algebras
- Free, projective, and flat modules and ideals in associative algebras
- Injective modules, self-injective associative rings
- Ideals in associative algebras
- Other classes of modules and ideals in associative algebras
- Infinite-dimensional simple rings (except as in 16Kxx)
- General module theory in associative algebras

Representation theory of associative rings and algebras
- Auslander-Reiten sequences (almost split sequences) and Auslander-Reiten quivers
- Representations of orders, lattices, algebras over commutative rings
- Representation type (finite, tame, wild, etc.) of associative algebras
- Representations of associative Artinian rings
- Representations of quivers and partially ordered sets
- Cohen-Macaulay modules in associative algebras

History of associative rings and algebras

Rings with polynomial identity
- Semiprime p.i. rings, rings embeddable in matrices over commutative rings
- Other kinds of identities (generalized polynomial, rational, involution)
- T-ideals, identities, varieties of associative rings and algebras
- Trace rings and invariant theory (associative rings and algebras)
- Functional identities (associative rings and algebras)
- Identities other than those of matrices over commutative rings

Hopf algebras, quantum groups and related topics
- Ring-theoretic aspects of quantum groups
- Hopf algebras and their applications
- Coalgebras and comodules; corings
- Connections of Hopf algebras with combinatorics
- Yang-Baxter equations
- Bialgebras

Conditions on elements
- Center, normalizer (invariant elements) (associative rings and algebras)
- Divisibility, noncommutative UFDs
- Idempotent elements (associative rings and algebras)
- Units, groups of units (associative rings and algebras)
- Generalizations of commutativity (associative rings and algebras)
- Generalized inverses (associative rings and algebras)
- Integral domains (associative rings and algebras)
- Ore rings, multiplicative sets, Ore localization

Division rings and semisimple Artin rings
- Finite-dimensional division rings
- Brauer groups (algebraic aspects)
- Infinite-dimensional and general division rings

Associative algebras and orders
- Separable algebras (e.g., quaternion algebras, Azumaya algebras, etc.)
- Orders in separable algebras
- Lattices over orders
- Commutative orders

General and miscellaneous
- Category-theoretic methods and results in associative algebras (except as in 16D90)
- Applications of logic in associative algebras

Computational aspects of associative rings
- Computational aspects of associative rings (general theory)
- Gröbner-Shirshov bases

Local rings and generalizations
- Noncommutative local and semilocal rings, perfect rings
- Quasi-Frobenius rings

Generalizations
- Γ and fuzzy structures
- Hyperrings
- Near-rings
- Semirings

Category theory; homological algebra

General theory of categories and functors
- Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)
- Categories admitting limits (complete categories), functors preserving limits, completions
- Adjoint functors (universal constructions, reflective subcategories, Kan extensions, etc.)
- Factorization systems, substructures, quotient structures, congruences, amalgams
- Graphs, diagram schemes, precategories
- Natural morphisms, dinatural morphisms
- Epimorphisms, monomorphisms, special classes of morphisms, null morphisms
- Functor categories, comma categories
- Definitions and generalizations in theory of categories
- Special properties of functors (faithful, full, etc.)
- Foundations, relations to logic and deductive systems
- Graded categories (general)

Categories and theories
- Monads (= standard construction, triple or triad), algebras for monads, homology and derived functors for monads
- Categorical semantics of formal languages
- Theories (e.g., algebraic theories), structure, and semantics
- Structured objects in a category (group objects, etc.)
- Sketches and generalizations
- Eilenberg-Moore and Kleisli constructions for monads
- Accessible and locally presentable categories
- Equational categories

Computational methods for problems pertaining to category theory

History of category theory

Higher categories and homotopical algebra
- $(\infty,1)$-categories (quasi-categories, Segal spaces, etc.); ∞-topoi, stable ∞-categories
- Categories of fibrations, relations to K-theory, relations to type theory
- Tricategories, weak n-categories, coherence, semi-strictification
- Localizations (e.g., simplicial localization, Bousfield localization)
- ∞-operads and higher algebra
- Simplicial sets, simplicial objects
- (∞,n)-categories and (∞,∞)-categories
- Homotopical algebra, Quillen model categories, derivators
- 2-categories, bicategories, double categories
- 2-dimensional monad theory
- Strict omega-categories, computads, polygraphs
- Categorification

Homological algebra in category theory, derived categories and functors
- 2-groups, crossed modules, crossed complexes
- Derived categories, triangulated categories
- Relative homological algebra, projective classes (category-theoretic aspects)
- Ext and Tor, generalizations, Künneth formula (category-theoretic aspects)
- A_∞-categories, relations with homological mirror symmetry
- Chain complexes (category-theoretic aspects), dg categories
- Spectral sequences, hypercohomology
- Graph complexes and graph homology
- Nonabelian homological algebra (category-theoretic aspects)
- Resolutions; derived functors (category-theoretic aspects)
- Projectives and injectives (category-theoretic aspects)
- Homological dimension (category-theoretic aspects)
- Other (co)homology theories (category-theoretic aspects)
- Stable module categories
- Simplicial modules and Dold-Kan correspondence

Categorical algebra
- Abelian categories, Grothendieck categories
- Regular categories, Barr-exact categories
- Protomodular categories, semi-abelian categories, Mal'tsev categories
- Preadditive, additive categories
- Categorical embedding theorems
- Definable subcategories and connections with model theory
- Localization of categories, calculus of fractions
- Torsion theories, radicals
- Categorical Galois theory

Monoidal categories and operads
- Traced monoidal categories, compact closed categories, star-autonomous categories
- Non-symmetric operads, multicategories, generalized multicategories
- Polycategories/dioperads, properads, PROPs, cyclic operads, modular operads
- String diagrams and graphical calculi
- Categorical aspects of linear logic
- Topological and simplicial operads
- Fusion categories, modular tensor categories, modular functors
- Monoidal categories, symmetric monoidal categories
- Dagger categories, categorical quantum mechanics
- Algebraic operads, cooperads, and Koszul duality
- Braided monoidal categories and ribbon categories
- Categories of networks and processes, compositionality
- Bimonoidal, skew-monoidal, duoidal categories
- Species, Hopf monoids, operads in combinatorics
- Tannakian categories
- Operads (general)
- Globular operads

Categories in geometry and topology
- Synthetic differential geometry, tangent categories, differential categories
- Goodwillie calculus and functor calculus
- Presheaves and sheaves, stacks, descent conditions (category-theoretic aspects)
- Algebraic K-theory and L-theory (category-theoretic aspects)
- Abstract manifolds and fiber bundles (category-theoretic aspects)
- Categories of topological spaces and continuous mappings
- Local categories and functors
- Frames and locales, pointfree topology, Stone duality
- Grothendieck groups (category-theoretic aspects)
- Grothendieck topologies and Grothendieck topoi
- Quantales

Special categories
- Embedding theorems, universal categories
- Categories of sets, characterizations
- Groupoids, semigroupoids, semigroups, groups (viewed as categories)
- Categories of machines, automata
- Preorders, orders, domains and lattices (viewed as categories)
- Categories of spans/cospans, relations, or partial maps
- Extensive, distributive, and adhesive categories
- Topoi

Categorical structures
- Proarrow equipments, Yoneda structures, KZ doctrines (lax idempotent monads)
- Closed categories (closed monoidal and Cartesian closed categories, etc.)
- Internal categories and groupoids
- Profunctors (= correspondences, distributors, modules)
- Enriched categories (over closed or monoidal categories)
- Actions of a monoidal category, tensorial strength
- Formal category theory
- Fibered categories

Special functions

Hypergeometric functions
- Orthogonal polynomials and functions in several variables expressible in terms of special functions in one variable
- Orthogonal polynomials and functions of hypergeometric type (Jacobi, Laguerre, Hermite, Askey scheme, etc.)
- Hypergeometric integrals and functions defined by them (E, G, H and I functions)
- Connections of hypergeometric functions with groups and algebras, and related topics
- Applications of hypergeometric functions
- Appell, Horn and Lauricella functions
- Orthogonal polynomials and functions associated with root systems
- Confluent hypergeometric functions, Whittaker functions, ${}_1F_1$
- Other hypergeometric functions and integrals in several variables
- Bessel and Airy functions, cylinder functions, ${}_0F_1$
- Hypergeometric functions associated with root systems
- Generalized hypergeometric series, ${}_pF_q$
- Other special orthogonal polynomials and functions
- Classical hypergeometric functions, ${}_2F_1$
- Elliptic integrals as hypergeometric functions
- Spherical harmonics

Basic hypergeometric functions
- Basic orthogonal polynomials and functions associated with root systems (Macdonald polynomials, etc.)
- Connections of basic hypergeometric functions with quantum groups, Chevalley groups, p-adic groups, Hecke algebras, and related topics
- Orthogonal polynomials and functions in several variables expressible in terms of basic hypergeometric functions in one variable
- Basic orthogonal polynomials and functions (Askey-Wilson polynomials, etc.)
- Bibasic functions and multiple bases
- Other basic hypergeometric functions and integrals in several variables
- q-gamma functions, q-beta functions and integrals
- Basic hypergeometric functions in one variable, ${}_r\phi_s$
- Basic hypergeometric integrals and functions defined by them
- Basic hypergeometric functions associated with root systems
- Applications of basic hypergeometric functions

Elementary classical functions
- Incomplete beta and gamma functions (error functions, probability integral, Fresnel integrals)
- Exponential and trigonometric functions
- Gamma, beta and polygamma functions
- Higher logarithm functions

Other special functions
- Lamé, Mathieu, and spheroidal wave functions
- Mittag-Leffler functions and generalizations
- Other functions coming from differential, difference and integral equations
- Special functions in characteristic p (gamma functions, etc.)
- Elliptic functions and integrals
- Painlevé-type functions
- Other functions defined by series and integrals
- Other wave functions

Computational aspects of special functions
- Symbolic computation of special functions (Gosper and Zeilberger algorithms, etc.)
- Numerical approximation and evaluation of special functions

History of special functions

Algebraic geometry

(Co)homology theory in algebraic geometry
- Other algebro-geometric (co)homologies (e.g., intersection, equivariant, Lawson, Deligne (co)homologies)
- Differentials and other special sheaves; D-modules; Bernstein-Sato ideals and polynomials
- Derived categories of sheaves, dg categories, and related constructions in algebraic geometry
- Topological properties in algebraic geometry
- Motivic cohomology; motivic homotopy theory
- de Rham cohomology and algebraic geometry
- Vanishing theorems in algebraic geometry
- Classical real and complex (co)homology in algebraic geometry
- Homotopy theory and fundamental groups in algebraic geometry
- Sheaves in algebraic geometry
- Étale and other Grothendieck topologies and (co)homologies
- Brauer groups of schemes
- p-adic cohomology, crystalline cohomology
- Multiplier ideals

Families, fibrations in algebraic geometry
- Applications of vector bundles and moduli spaces in mathematical physics (twistor theory, instantons, quantum field theory)
- Arithmetic ground fields (finite, local, global) and families or fibrations
- Structure of families (Picard-Lefschetz, monodromy, etc.)
- Formal methods and deformations in algebraic geometry
- Variation of Hodge structures (algebro-geometric aspects)
- Fine and coarse moduli spaces
- Geometric Langlands program (algebro-geometric aspects)
- Algebraic moduli problems, moduli of vector bundles
- Stacks and moduli problems
- Fibrations, degenerations in algebraic geometry

History of algebraic geometry

Arithmetic problems in algebraic geometry; Diophantine geometry
- Universal profinite groups (relationship to moduli spaces, projective and moduli towers, Galois theory)
- Zeta functions and related questions in algebraic geometry (e.g., Birch-Swinnerton-Dyer conjecture)
- Finite ground fields in algebraic geometry
- Global ground fields in algebraic geometry
- Perfectoid spaces and mixed characteristic
- Local ground fields in algebraic geometry
- Hasse principle, weak and strong approximation, Brauer-Manin obstruction
- Other nonalgebraically closed ground fields in algebraic geometry
- Applications to coding theory and cryptography of arithmetic geometry
- Arithmetic varieties and schemes; Arakelov theory; heights
- Positive characteristic ground fields in algebraic geometry
- Modular and Shimura varieties
- Rigid analytic geometry
- Rational points

Foundations of algebraic geometry
- Fundamental constructions in algebraic geometry involving higher and derived categories (homotopical algebraic geometry, derived algebraic geometry, etc.)
- Logarithmic algebraic geometry, log schemes
- Generalizations (algebraic spaces, stacks)
- Elementary questions in algebraic geometry
- Geometry over the field with one element
- Noncommutative algebraic geometry
- Relevant commutative algebra
- Varieties and morphisms
- Schemes and morphisms

Cycles and subschemes
- Intersection theory, characteristic classes, intersection multiplicities in algebraic geometry
- (Equivariant) Chow groups and rings; motives
- Divisors, linear systems, invertible sheaves
- Parametrization (Chow and Hilbert schemes)
- Pencils, nets, webs in algebraic geometry
- Applications of methods of algebraic K-theory in algebraic geometry
- Transcendental methods, Hodge theory (algebro-geometric aspects)
- Riemann-Roch theorems
- Algebraic cycles
- Torelli problem
- Picard groups

Surfaces and higher-dimensional varieties
- Vector bundles on surfaces and higher-dimensional varieties, and their moduli
- Mirror symmetry (algebro-geometric aspects)
- Topology of surfaces (Donaldson polynomials, Seiberg-Witten invariants)
- Arithmetic ground fields for surfaces or higher-dimensional varieties
- $K3$ surfaces and Enriques surfaces
- Moduli, classification: analytic theory; relations with modular forms
- Hypersurfaces and algebraic geometry
- Holomorphic symplectic varieties, hyper-Kähler varieties
- Families, moduli, classification: algebraic theory
- Automorphisms of surfaces and higher-dimensional varieties
- Singularities of surfaces or higher-dimensional varieties
- Rational and ruled surfaces
- Elliptic surfaces, elliptic or Calabi-Yau fibrations
- Calabi-Yau manifolds (algebro-geometric aspects)
- Relationships with physics
- Surfaces of general type
- n-folds ($n > 4$)
- Special surfaces
- Fano varieties
- 3-folds
- 4-folds

Projective and enumerative algebraic geometry
- Gromov-Witten invariants, quantum cohomology, Gopakumar-Vafa invariants, Donaldson-Thomas invariants (algebro-geometric aspects)
- Projective techniques in algebraic geometry
- Classical problems, Schubert calculus
- Enumerative problems (combinatorial problems) in algebraic geometry
- Configurations and arrangements of linear subspaces
- Secant varieties, tensor rank, varieties of sums of powers
- Varieties of low degree
- Adjunction problems

Birational geometry
- Rationality questions in algebraic geometry
- Ramification problems in algebraic geometry
- Global theory and resolution of singularities (algebro-geometric aspects)
- Birational automorphisms, Cremona group and generalizations
- Embeddings in algebraic geometry
- Coverings in algebraic geometry
- Rational and birational maps
- Arcs and motivic integration
- Minimal model program (Mori theory, extremal rays)
- McKay correspondence

Algebraic groups
- Classical groups (algebro-geometric aspects)
- Other algebraic groups (geometric aspects)
- Formal groups, p-divisible groups
- Affine algebraic groups, hyperalgebra constructions
- Geometric invariant theory
- Group actions on varieties or schemes (quotients)
- Group varieties
- Group schemes

Local theory in algebraic geometry
- Infinitesimal methods in algebraic geometry
- Formal neighborhoods in algebraic geometry
- Local cohomology and algebraic geometry
- Local structure of morphisms in algebraic geometry: étale, flat, etc.
- Singularities in algebraic geometry
- Deformations of singularities
- Local deformation theory, Artin approximation, etc.

Curves in algebraic geometry
- Theta functions and curves; Schottky problem
- Vector bundles on curves and their moduli
- Families, moduli of curves (algebraic)
- Coverings of curves, fundamental group
- Families, moduli of curves (analytic)
- Singularities of curves, local rings
- Arithmetic ground fields for curves
- Algebraic functions and function fields in algebraic geometry
- Special divisors on curves (gonality, Brill-Noether theory)
- Relationships between algebraic curves and integrable systems
- Riemann surfaces; Weierstrass points; gap sequences
- Relationships between algebraic curves and physics
- Jacobians, Prym varieties
- Special algebraic curves and curves of low genus
- Dessins d'enfants theory
- Automorphisms of curves
- Plane and space curves
- Elliptic curves

Computational aspects in algebraic geometry
- Computational aspects of algebraic surfaces
- Computational aspects of algebraic curves
- Effectivity, complexity and computational aspects of algebraic geometry
- Computational real algebraic geometry
- Computational algebraic geometry over arithmetic ground fields
- Computational aspects of higher-dimensional varieties
- Geometric aspects of numerical algebraic geometry

Affine geometry
- Affine spaces (automorphisms, embeddings, exotic structures, cancellation problem)
- Classification of affine varieties
- Group actions on affine varieties
- Affine fibrations
- Jacobian problem

Tropical geometry
- Combinatorial aspects of tropical varieties
- Arithmetic aspects of tropical varieties
- Geometric aspects of tropical varieties
- Applications of tropical geometry
- Foundations of tropical geometry and relations with algebra

Abelian varieties and schemes
- Complex multiplication and abelian varieties
- Algebraic theory of abelian varieties
- Analytic theory of abelian varieties; abelian integrals and differentials
- Theta functions and abelian varieties
- Subvarieties of abelian varieties
- Picard schemes, higher Jacobians
- Algebraic moduli of abelian varieties, classification
- Arithmetic ground fields for abelian varieties
- Isogeny

Special varieties
- Varieties defined by ring conditions (factorial, Cohen-Macaulay, seminormal)
- Homogeneous spaces and generalizations
- Rational and unirational varieties
- Rationally connected varieties
- Compactifications; symmetric and spherical varieties
- Toric varieties, Newton polyhedra, Okounkov bodies
- Grassmannians, Schubert varieties, flag manifolds
- Low codimension problems in algebraic geometry
- Determinantal varieties
- Complete intersections
- Character varieties
- Supervarieties
- Linkage

Real algebraic and real-analytic geometry
- Semialgebraic sets and related spaces
- Real-analytic and semi-analytic sets
- Topology of real algebraic varieties
- Nash functions and manifolds
- Real algebraic sets

Real functions

Functions of one variable
- Nondifferentiability (nondifferentiable functions, points of nondifferentiability), discontinuous derivatives
- Differentiation (real functions of one variable): general theory, generalized derivatives, mean value theorems
- Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) for real functions in one variable
- Iteration of real functions in one variable
- Fractional derivatives and integrals
- Foundations: limits and generalizations, elementary topology of the line
- Classification of real functions; Baire classification of sets and functions
- Singular functions, Cantor functions, functions with other special properties
- Rate of growth of functions, orders of infinity, slowly varying functions
- Monotonic functions, generalizations
- Convexity of real functions in one variable, generalizations
- Denjoy and Perron integrals, other special integrals
- Integrals of Riemann, Stieltjes and Lebesgue type
- Lipschitz (Hölder) classes
- Functions of bounded variation, generalizations
- Absolutely continuous real functions in one variable
- One-variable calculus
- Elementary functions
- Antidifferentiation

Functions of several variables
- Absolutely continuous real functions of several variables, functions of bounded variation
- Integral formulas of real functions of several variables (Stokes, Gauss, Green, etc.)
- Special properties of functions of several variables, Hölder conditions, etc.
- Continuity and differentiation questions
- Integration of real functions of several variables: length, area, volume
- Implicit function theorems, Jacobians, transformations with several variables
- Convexity of real functions of several variables, generalizations
- Calculus of vector functions
- Representation and superposition of functions

Polynomials, rational functions in real analysis
- Real polynomials: analytic properties, etc.
- Real polynomials: location of zeros
- Real rational functions

History of real functions

Inequalities in real analysis
- Inequalities for sums, series and integrals
- Inequalities involving derivatives and differential and integral operators
- Inequalities for trigonometric functions and polynomials
- Other analytical inequalities
- Inequalities involving other types of functions

Computational methods for problems pertaining to real functions

Miscellaneous topics in real functions
- Calculus of functions taking values in infinite-dimensional spaces
- Calculus of functions on infinite-dimensional spaces
- Constructive real analysis
- C^∞-functions, quasi-analytic functions
- Non-Archimedean analysis
- Real analysis on time scales or measure chains
- Real-analytic functions
- Set-valued functions
- Nonstandard analysis
- Fuzzy real analysis
- Means

Commutative algebra

General commutative ring theory
- General commutative ring theory and combinatorics (zero-divisor graphs, annihilating-ideal graphs, etc.)
- Characteristic p methods (Frobenius endomorphism) and reduction to characteristic p; tight closure
- Associated graded rings of ideals (Rees ring, form ring), analytic spread and related topics
- Valuations and their generalizations for commutative rings
- Actions of groups on commutative rings; invariant theory
- Divisibility and factorizations in commutative rings
- Ideals and multiplicative ideal theory in commutative rings
- Graded rings

Arithmetic rings and other special commutative rings
- Commutative rings defined by factorization properties (e.g., atomic, factorial, half-factorial)
- Commutative rings defined by monomial ideals; Stanley-Reisner face rings; simplicial complexes
- Euclidean rings and generalizations
- Polynomial rings and ideals; rings of integer-valued polynomials
- Commutative rings defined by binomial ideals, toric rings, etc.
- Dedekind, Prüfer, Krull and Mori rings and their generalizations
- Other commutative rings defined by combinatorial properties
- Witt vectors and related rings
- Formal power series rings
- Rings with straightening laws, Hodge algebras
- Principal ideal rings
- Seminormal rings
- Cluster algebras
- Valuation rings
- Excellent rings

Homological methods in commutative ring theory
- (Co)homology of commutative rings and algebras (e.g., Hochschild, André-Quillen, cyclic, dihedral, etc.)
- Homological dimension and commutative rings
- Derived categories and commutative rings
- Local cohomology and commutative rings
- Homological conjectures (intersection theorems) in commutative ring theory
- Torsion theory for commutative rings
- Homological functors on modules of commutative rings (Tor, Ext, etc.)
- Deformations and infinitesimal methods in commutative ring theory
- Grothendieck groups, K-theory and commutative rings
- Syzygies, resolutions, complexes and commutative rings
- Hilbert-Samuel and Hilbert-Kunz functions; Poincaré series

Chain conditions, finiteness conditions in commutative ring theory
- Commutative rings and modules of finite generation or presentation; number of generators
- Commutative Noetherian rings and modules
- Commutative Artinian rings and modules, finite-dimensional algebras

Computational aspects and applications of commutative rings
- Applications of commutative algebra (e.g., to statistics, control theory, optimization, etc.)
- Gröbner bases; other bases for ideals and modules (e.g., Janet and border bases)
- Solving polynomial systems; resultants
- Computational homological algebra
- Polynomials, factorization in commutative rings

Theory of modules and ideals in commutative rings
- Theory of modules and ideals in commutative rings described by combinatorial properties
- Structure, classification theorems for modules and ideals in commutative rings
- Module categories and commutative rings
- Dimension theory, depth, related commutative rings (catenary, etc.)
- Projective and free modules and ideals in commutative rings
- Other special types of modules and ideals in commutative rings
- Linkage, complete intersections and determinantal ideals
- Injective and flat modules and ideals in commutative rings
- Torsion modules and ideals in commutative rings
- Cohen-Macaulay modules
- Class groups

Finite commutative rings
- Polynomials and finite commutative rings
- Structure of finite commutative rings

Local rings and semilocal rings
- Multiplicity theory and related topics
- Special types (Cohen-Macaulay, Gorenstein, Buchsbaum, etc.)
- Regular local rings

Applications of logic to commutative algebra
- Applications of logic to commutative algebra

Commutative ring extensions and related topics
- Extension theory of commutative rings
- Integral dependence in commutative rings; going up, going down
- Polynomials over commutative rings
- Rings of fractions and localization for commutative rings
- Étale and flat extensions; Henselization; Artin approximation
- Completion of commutative rings
- Morphisms of commutative rings
- Integral closure of commutative rings and ideals
- Galois theory and commutative ring extensions

Differential algebra
- Commutative rings of differential operators and their modules
- Derivations and commutative rings
- Modules of differentials

Integral domains
- Integral domains

Topological rings and modules
- Analytical algebras and rings
- Complete rings, completion
- Global topological rings
- Power series rings
- Henselian rings
- Ordered rings
- Real algebra

History of commutative algebra

Number theory

Discontinuous groups and automorphic forms
- Dirichlet series in several complex variables associated to automorphic forms; Weyl group multiple Dirichlet series
- Automorphic forms on GL(2); Hilbert and Hilbert-Siegel modular groups and their modular and automorphic forms; Hilbert modular surfaces
- Special values of automorphic L-series, periods of automorphic forms, cohomology, modular symbols
- Representation-theoretic methods; automorphic representations over local and global fields
- Holomorphic modular forms of integral weight
- Siegel modular groups; Siegel and Hilbert-Siegel modular and automorphic forms
- Fourier coefficients of automorphic forms
- Langlands L-functions; one variable Dirichlet series and functional equations
- Hecke-Petersson operators, differential operators (several variables)
- Hecke-Petersson operators, differential operators (one variable)
- Other groups and their modular and automorphic forms (several variables)
- Dedekind eta function, Dedekind sums
- Structure of modular groups and generalizations; arithmetic groups
- Theta series; Weil representation; theta correspondences
- Modular and automorphic functions
- Spectral theory; trace formulas (e.g., that of Selberg)
- Automorphic forms and their relations with perfectoid spaces
- Automorphic forms, one variable
- Cohomology of arithmetic groups
- p-adic theory, local fields
- Modular correspondences, etc.
- Forms of half-integer weight; nonholomorphic modular forms
- Relationship to Lie algebras and finite simple groups
- Congruences for modular and p-adic modular forms
- Relations with algebraic geometry and topology
- Modular forms associated to Drinfel'd modules
- Galois representations
- Jacobi forms

Algebraic number theory: global fields
- Integral representations related to algebraic numbers; Galois module structure of rings of integers
- Class numbers, class groups, discriminants
- PV-numbers and generalizations; other special algebraic numbers; Mahler measure
- Class groups and Picard groups of orders
- Other abelian and metabelian extensions
- Quaternion and other division algebras: arithmetic, zeta functions
- Polynomials (irreducibility, etc.)
- Zeta functions and L-functions of function fields
- Cyclotomic function fields (class groups, Bernoulli objects, etc.)
- Zeta functions and L-functions of number fields
- Other algebras and orders, and their zeta and L-functions
- Langlands-Weil conjectures, nonabelian class field theory
- K-theory of global fields
- Cubic and quartic extensions
- Distribution of prime ideals
- Arithmetic theory of algebraic function fields
- Algebraic numbers; rings of algebraic integers
- Units and factorization
- Adèle rings and groups
- Cyclotomic extensions
- Other analytic theory
- Quadratic extensions
- Other number fields
- Totally real fields
- Class field theory
- Galois cohomology
- Density theorems
- Iwasawa theory
- Galois theory

Polynomials and matrices
- Matrices, determinants in number theory
- Polynomials in number theory

Zeta and L-functions: analytic theory
- Selberg zeta functions and regularized determinants; applications to spectral theory, Dirichlet series, Eisenstein series, etc. (explicit formulas)
- Nonreal zeros of $\zeta(s)$ and $L(s,\chi)$; Riemann and other hypotheses
- Other Dirichlet series and zeta functions
- Relations with noncommutative geometry
- Multiple Dirichlet series and zeta functions and multizeta values
- $\zeta(s)$ and $L(s,\chi)$
- Hurwitz and Lerch zeta functions
- Relations with random matrices
- Real zeros of $L(s,\chi)$; results on $L(1,\chi)$
- Zeta and L-functions in characteristic p
- Tauberian theorems

Multiplicative number theory
- Other results on the distribution of values or the characterization of arithmetic functions
- Primes represented by polynomials; other multiplicative structures of polynomial values
- Distribution functions associated with additive and positive multiplicative functions
- Asymptotic results on arithmetic functions
- Asymptotic results on counting functions for algebraic and topological structures
- Rate of growth of arithmetic functions
- Applications of automorphic functions and forms to multiplicative problems
- Distribution of integers with specified multiplicative constraints
- Generalized primes and integers
- Applications of sieve methods
- Primes in congruence classes
- Distribution of integers in special residue classes
- Distribution of primes
- Turán theory
- Sieves

Probabilistic theory: distribution modulo 1; metric theory of algorithms
- Normal numbers, radix expansions, Pisot numbers, Salem numbers, good lattice points, etc.
- General theory of distribution modulo 1
- Irregularities of distribution, discrepancy
- Metric theory of other algorithms and expansions; measure and Hausdorff dimension
- Pseudo-random numbers; Monte Carlo methods
- Harmonic analysis and almost periodicity in probabilistic number theory
- Metric theory of continued fractions
- Diophantine approximation in probabilistic number theory
- Arithmetic functions in probabilistic number theory
- Well-distributed sequences and other variations
- Continuous, p-adic and abstract analogues
- Special sequences

Forms and linear algebraic groups
- Analytic theory (Epstein zeta functions; relations with automorphic forms and functions)
- Quadratic forms over global rings and fields
- Galois cohomology of linear algebraic groups
- Quadratic forms over local rings and fields
- General ternary and quaternary quadratic forms; forms of more than two variables
- Quadratic forms over general fields
- Sums of squares and representations by other particular quadratic forms
- Quadratic spaces; Clifford algebras
- Forms of degree higher than two
- General binary quadratic forms
- Algebraic theory of quadratic forms; Witt groups and rings
- Bilinear and Hermitian forms
- Class numbers of quadratic and Hermitian forms
- K-theory of quadratic and Hermitian forms
- Forms over real fields
- p-adic theory
- Classical groups

Algebraic number theory: local and p-adic fields
- Other analytic theory (analogues of beta and gamma functions, p-adic integration, etc.)
- Class field theory; p-adic formal groups
- Zeta functions and L-functions
- Ramification and extension theory
- Non-Archimedean dynamical systems
- Langlands-Weil conjectures, nonabelian class field theory
- K-theory of local fields
- Prehomogeneous vector spaces
- Integral representations
- Algebras and orders, and their zeta functions
- Other nonanalytic theory
- Galois cohomology
- Galois theory
- Polynomials

Diophantine equations
- Quadratic and bilinear Diophantine equations
- Counting solutions of Diophantine equations
- Higher degree equations; Fermat's equation
- Cubic and quartic Diophantine equations
- Diophantine equations in many variables
- Multiplicative and norm form equations
- Rational numbers as sums of fractions
- p-adic and power series fields
- Exponential Diophantine equations
- Congruences in many variables
- Linear Diophantine equations
- Diophantine inequalities
- Representation problems
- The Frobenius problem
- Thue-Mahler equations

History of number theory

Diophantine approximation, transcendental number theory
- Approximation by numbers from a fixed field
- Approximation in non-Archimedean valuations
- Linear forms in logarithms; Baker's method
- Algebraic independence; Gel'fond's method
- Schmidt Subspace Theorem and applications
- Number-theoretic analogues of methods in Nevanlinna theory (work of Vojta et al.)
- Homogeneous approximation to one number
- Continued fractions and generalizations
- Results involving abelian varieties
- Approximation to algebraic numbers
- Small fractional parts of polynomials and generalizations
- Transcendence (general theory)
- Transcendence theory of elliptic and abelian functions
- Markov and Lagrange spectra and generalizations
- Simultaneous homogeneous approximation, linear forms
- Transcendence theory of Drinfel'd and t-modules
- Inhomogeneous linear forms
- Irrationality; linear independence over a field
- Measures of irrationality and of transcendence
- Diophantine inequalities
- Distribution modulo one
- Transcendence theory of other special functions
- Metric theory

Exponential sums and character sums
- Trigonometric and exponential sums, general
- Gauss and Kloosterman sums; generalizations
- Estimates on exponential sums
- Jacobsthal and Brewer sums; other complete character sums
- Sums over arbitrary intervals
- Estimates on character sums
- Sums over primes
- Weyl sums

Computational number theory
- Computer solution of Diophantine equations
- Evaluation of number-theoretic constants
- Number-theoretic algorithms; complexity
- Values of arithmetic functions; tables
- Algebraic number theory computations
- Calculation of integer sequences
- Continued fraction calculations (number-theoretic aspects)
- Analytic computations
- Factorization
- Primality

Connections of number theory and logic
- Ultraproducts (number-theoretic aspects)
- Decidability (number-theoretic aspects)
- Model theory (number-theoretic aspects)
- Nonstandard arithmetic (number-theoretic aspects)

Finite fields and commutative rings (number-theoretic aspects)
- Structure theory for finite fields and commutative rings (number-theoretic aspects)
- Algebraic coding theory; cryptography (number-theoretic aspects)
- Other character sums and Gauss sums
- Arithmetic theory of polynomial rings over finite fields
- Polynomials over finite fields
- Finite upper half-planes
- Exponential sums
- Cyclotomy

Arithmetic algebraic geometry (Diophantine geometry)
- L-functions of varieties over global fields; Birch-Swinnerton-Dyer conjecture
- Abelian varieties of dimension > 1
- Varieties over finite and local fields
- Curves over finite and local fields
- Elliptic curves over global fields
- Curves of arbitrary genus or genus $\neq 1$ over global fields
- Elliptic curves over local fields
- Drinfel'd modules; higher-dimensional motives, etc.
- Arithmetic aspects of modular and Shimura varieties
- Arithmetic aspects of dessins d'enfants, Belyĭ theory
- Varieties over global fields
- Geometric class field theory
- Complex multiplication and moduli of abelian varieties
- Polylogarithms and relations with K-theory
- Elliptic and modular units
- Arithmetic mirror symmetry
- Heights

Additive number theory; partitions
- Applications of the Hardy-Littlewood method
- Lattice points in specified regions
- Goldbach-type theorems; other additive questions involving primes
- Inverse problems of additive number theory, including sumsets
- Partition identities; identities of Rogers-Ramanujan type
- Elementary theory of partitions
- Waring's problem and variants
- Analytic theory of partitions
- Partitions; congruences and congruential restrictions

Sequences and sets
- Bernoulli and Euler numbers and polynomials
- Additive bases, including sumsets
- Other combinatorial number theory
- Special sequences and polynomials
- Fibonacci and Lucas numbers and polynomials and generalizations
- Farey sequences; the sequences $1^k, 2^k, \dots$
- Binomial coefficients; factorials; q-identities
- Arithmetic combinatorics; higher degree uniformity
- Bell and Stirling numbers
- Representation functions
- Density, gaps, topology
- Arithmetic progressions
- Sequences (mod m)
- Automata sequences
- Recurrences

Elementary number theory
- Radix representation; digital problems
- Multiplicative structure; Euclidean algorithm; greatest common divisors
- Arithmetic functions; related numbers; inversion formulas
- Other number representations
- Power residues, reciprocity
- Factorization; primality
- Congruences; primitive roots; residue systems
- Continued fractions
- Primes

Geometry of numbers
- Mean value and transfer theorems
- Automorphism groups of lattices
- Lattice packing and covering (number-theoretic aspects)
- Quadratic forms (reduction theory, extreme forms, etc.)
- Relations with coding theory
- Lattices and convex bodies (number-theoretic aspects)
- Products of linear forms
- Nonconvex bodies
- Minima of forms

Miscellaneous applications of number theory
- Miscellaneous applications of number theory

Combinatorics

Graph theory
- Isomorphism problems in graph theory (reconstruction conjecture, etc.) and homomorphisms (subgraph embedding, etc.)
- Edge subsets with special properties (factorization, matching, partitioning, covering and packing, etc.)
- Vertex subsets with special properties (dominating sets, independent sets, cliques, etc.)
- Fractional graph theory, fuzzy graph theory
- Graph designs and isomorphic decomposition
- Graph algorithms (graph-theoretic aspects)
- Games on graphs (graph-theoretic aspects)
- Directed graphs (digraphs), tournaments
- Random graphs (graph-theoretic aspects)
- Graph representations (geometric and intersection representations, etc.)
- Planar graphs; geometric and topological aspects of graph theory
- Coloring of graphs and hypergraphs
- Small world graphs, complex networks (graph-theoretic aspects)
- Graphical indices (Wiener index, Zagreb index, Randić index, etc.)
- Extremal problems in graph theory
- Eulerian and Hamiltonian graphs
- Graphs and abstract algebra (groups, rings, fields, etc.)
- Graphs and linear algebra (matrices, eigenvalues, etc.)
- Applications of graph theory
- Enumeration in graph theory
- Structural characterization of families of graphs
- Signed and weighted graphs
- Density (toughness, etc.)
- Generalized Ramsey theory
- Graph labelling (graceful graphs, bandwidth, etc.)
- Graph operations (line graphs, products, etc.)
- Random walks on graphs
- Chemical graph theory
- Distance in graphs
- Graph polynomials
- Paths and cycles
- Flows in graphs
- Expander graphs
- Infinite graphs
- Vertex degrees
- Perfect graphs
- Connectivity
- Graph minors
- Hypergraphs
- Trees

Algebraic combinatorics
- Combinatorial aspects of groups and algebras
- Association schemes, strongly regular graphs
- Combinatorial aspects of commutative algebra
- Combinatorial aspects of algebraic geometry
- Group actions on combinatorial structures
- Symmetric functions and generalizations
- Combinatorial aspects of representation theory
- Combinatorial aspects of simplicial complexes

Extremal combinatorics
- Probabilistic methods in extremal combinatorics, including polynomial methods (combinatorial Nullstellensatz, etc.)
- Transversal (matching) theory
- Extremal set theory
- Ramsey theory

Computational methods for problems pertaining to combinatorics

History of combinatorics

Designs and configurations
- Combinatorial aspects of finite geometries
- Combinatorial aspects of difference sets (number-theoretic, group-theoretic, etc.)
- Combinatorial aspects of block designs
- Combinatorial aspects of matrices (incidence, Hadamard, etc.)
- Combinatorial aspects of tessellation and tiling problems
- Combinatorial aspects of matroids and geometric lattices
- Other designs, configurations
- Orthogonal arrays, Latin squares, Room squares
- Combinatorial aspects of packing and covering
- Triple systems
- Polyominoes

Enumerative combinatorics
- Factorials, binomial coefficients, combinatorial functions
- q-calculus and related topics
- Permutations, words, matrices
- Exact enumeration problems, generating functions
- Combinatorial inequalities
- Combinatorial aspects of partitions of integers
- Combinatorial identities, bijective combinatorics
- Asymptotic enumeration
- Partitions of sets
- Umbral calculus

Group theory and generalizations

Structure and classification of infinite or finite groups
- Free products of groups, free products with amalgamation, Higman-Neumann-Neumann extensions, and generalizations
- Residual properties and generalizations; residually finite groups
- Quasivarieties and varieties of groups
- General structure theorems for groups
- Groups with a BN-pair; buildings
- Subgroup theorems; subgroup growth
- Extensions, wreath products, and other compositions of groups
- Automorphisms of infinite groups
- Chains and lattices of subgroups, subnormal subgroups
- Conjugacy classes for groups
- Local properties of groups
- Limits, profinite groups
- Free nonabelian groups
- Groups acting on trees
- Maximal subgroups
- Simple groups

Abstract finite groups
- Finite solvable groups, theory of formations, Schunck classes, Fitting classes, π-length, ranks
- Special subgroups (Frattini, Fitting, etc.)
- Automorphisms of abstract finite groups
- Finite nilpotent groups, p-groups
- Arithmetic and combinatorial problems involving abstract finite groups
- Sylow subgroups, Sylow properties, π-groups, π-structure
- Series and lattices of subgroups
- Simple groups: sporadic groups
- Simple groups: alternating groups and groups of Lie type
- Products of subgroups of abstract finite groups
- Finite simple groups and their classification
- Subnormal subgroups of abstract finite groups

Special aspects of infinite or finite groups
- Word problems, other decision problems, connections with logic and automata (group-theoretic aspects)
- Other groups related to topology or analysis
- Representations of groups as automorphism groups of algebraic systems
- Ordered groups (group-theoretic aspects)
- Fundamental groups and their automorphisms (group-theoretic aspects)
- Periodic groups; locally finite groups
- Solvable groups, supersolvable groups
- Formations of groups, Fitting classes
- Associated Lie structures for groups
- FC-groups and their generalizations
- Cancellation theory of groups; application of van Kampen diagrams
- Derived series, central series, and generalizations for groups
- Asymptotic properties of groups
- Automorphism groups of groups
- Reflection and Coxeter groups (group-theoretic aspects)
- Algebraic geometry over groups; equations over groups
- Groups of finite Morley rank
- Generalizations of solvable and nilpotent groups
- Hyperbolic groups and nonpositively curved groups
- Generators, relations, and presentations of groups
- Other classes of groups defined by subgroup chains
- Braid groups; Artin groups
- Geometric group theory
- Commutator calculus
- Nilpotent groups
- Engel conditions

Representation theory of groups
- Representations of infinite symmetric groups
- Representations of finite groups of Lie type
- p-adic representations of finite groups
- Integral representations of infinite groups
- Projective representations and multipliers
- Representations of finite symmetric groups
- Integral representations of finite groups
- Hecke algebras and their representations
- Group rings of infinite groups and their modules (group-theoretic aspects)
- Ordinary representations and characters
- Group rings of finite groups and their modules (group-theoretic aspects)
- Modular representations and characters
- Applications of group representations to physics and other areas of science
- Representations of sporadic groups

Groupoids (i.e. small categories in which all morphisms are isomorphisms)
- Groupoids (i.e. small categories in which all morphisms are isomorphisms)

Probabilistic methods in group theory
- Probabilistic methods in group theory

Linear algebraic groups and related topics
- Structure theory for linear algebraic groups
- Linear algebraic groups over finite fields
- Linear algebraic groups over the reals, the complexes, the quaternions
- Quantum groups (quantized function algebras) and their representations
- Linear algebraic groups over adèles and other rings and schemes
- Linear algebraic groups over global fields and their integers
- Applications of linear algebraic groups to the sciences
- Linear algebraic groups over local fields and their integers
- Schur and q-Schur algebras
- Representation theory for linear algebraic groups
- Cohomology theory for linear algebraic groups
- Linear algebraic groups over arbitrary fields
- Exceptional groups
- Kac-Moody groups

Permutation groups
- General theory for finite permutation groups
- Finite automorphism groups of algebraic, geometric, or combinatorial structures
- Multiply transitive infinite groups
- Multiply transitive finite groups
- Subgroups of symmetric groups
- Infinite automorphism groups
- General theory for infinite permutation groups
- Characterization theorems for permutation groups
- Primitive groups
- Symmetric groups

Computational methods for problems pertaining to group theory

History of group theory

Semigroups
- Varieties and pseudovarieties of semigroups
- General structure theory for semigroups
- Connections of semigroups with homological algebra and category theory
- Arithmetic theory of semigroups
- Semigroup rings, multiplicative semigroups of rings
- Semigroups of transformations, relations, partitions, etc.
- Radical theory for semigroups
- Representation of semigroups; actions of semigroups on sets
- Generalizations of semigroups
- Free semigroups, generators and relations, word problems
- Ideal theory for semigroups
- Semigroups in automata theory, linguistics, etc.
- Commutative semigroups
- Mappings of semigroups
- Orthodox semigroups
- Regular semigroups
- Inverse semigroups
- Algebraic monoids

Connections of group theory with homological algebra and category theory
- Homological methods in group theory
- Cohomology of groups
- Category of groups

Other groups of matrices
- Fuchsian groups and their generalizations (group-theoretic aspects)
- Other matrix groups over finite fields
- Unimodular groups, congruence subgroups (group-theoretic aspects)
- Other geometric groups, including crystallographic groups
- Other matrix groups over fields
- Other matrix groups over rings

Abelian groups
- Automorphisms, homomorphisms, endomorphisms, etc. for abelian groups
- Topological methods for abelian groups
- Torsion-free groups, infinite rank
- Torsion-free groups, finite rank
- Torsion groups, primary groups and generalized primary groups
- Direct sums, direct products, etc. for abelian groups
- Extensions of abelian groups
- Subgroups of abelian groups
- Homological and categorical methods for abelian groups
- Finite abelian groups
- Mixed groups

Foundations
- Applications of logic to group theory
- Metamathematical considerations in group theory
- Axiomatics and elementary properties of groups

Other generalizations of groups
- n-ary systems ($n \geq 3$)
- Ternary systems (heaps, semiheaps, heapoids, etc.)
- Sets with a single binary operation (groupoids)
- Loops, quasigroups
- Fuzzy groups
- Hypergroups

Topological groups, Lie groups

Lie groups
- Representations of nilpotent and solvable Lie groups (special orbital integrals, non-type I representations, etc.)
- Representations of Lie and real algebraic groups: algebraic methods (Verma modules, etc.)
- Representations of Lie and linear algebraic groups over real fields: analytic methods
- Representations of Lie and linear algebraic groups over global fields and adèle rings
- Analysis on real and complex Lie groups
- Infinite-dimensional Lie groups and their Lie algebras: general properties
- Loop groups and related constructions, group-theoretic treatment
- Continuous cohomologyof Lie groups
- Representations of Lie and linear algebraic groups over local fields
- Analysis on and representations of infinite-dimensional Lie groups
- Applications of Lie groups to the sciences; explicit representations
- Nilpotent and solvable Lie groups
- Analysis on p-adic Lie groups
- Discrete subgroups of Lie groups
- Geometric Langlands program: representation-theoretic aspects
- General properties and structure of complex Lie groups
- General properties and structure of other Lie groups
- General properties and structure of real Lie groups
- Structure and representation of the Lorentz group
- Lie algebras of Lie groups
- Semisimple Lie groups and their representations
- Local Lie groups

Locally compact groups and their algebras
- Duality theorems for locally compact groups
- Group algebras of locally compact groups
- C^*-algebras and W^*-algebras in relation to group representations
- Kazhdan's property (T), the Haagerup property, and generalizations
- Rigidity in locally compact groups
- Representations of group algebras
- General properties and structure of locally compact groups
- Induced representations for locally compact groups
- Unitary representations of locally compact groups
- Other representations of locally compact groups
- Ergodic theory on groups
- Automorphism groups of locally compact groups

Noncompact transformation groups
- Groups as automorphisms of other structures
- Measurable group actions
- General theory of group and pseudogroup actions
- Homogeneous spaces

Topological and differentiable algebraic systems
- Structure of general topological groups
- Analysis on general topological groups
- Structure of topological semigroups
- Analysis on topological semigroups
- Topological groupoids (including differentiable and Lie groupoids)
- Representations of general topological groups and semigroups
- Other topological algebraic systems and their representations
- Topological semilattices, lattices and applications

Locally compact abelian groups (LCA groups)
- Structure of group algebras of LCA groups
- General properties and structure of LCA groups

Compact groups
- Compact groups

Computational methods for problems pertaining to topological groups

History of topological groups

Potential theory

Two-dimensional potential theory
- Potentials and capacity, harmonic measure, extremal length and related notions in two dimensions
- Biharmonic, polyharmonic functions and equations, Poisson's equation in two dimensions
- Integral representations, integral operators, integral equations methods in two dimensions
- Boundary behavior (theorems of Fatou type, etc.) of harmonic functions in two dimensions
- Connections of harmonic functions with differential equations in two dimensions
- Boundary value and inverse problems for harmonic functions in two dimensions
- Harmonic, subharmonic, superharmonic functions in two dimensions

Higher-dimensional potential theory
- Integral representations, integral operators, integral equations methods in higher dimensions
- Connections of harmonic functions with differential equations in higher dimensions
- Potentials and capacities, extremal length and related notions in higher dimensions
- Boundary value and inverse problems for harmonic functions in higher dimensions
- Biharmonic and polyharmonic equations and functions in higher dimensions
- Harmonic, subharmonic, superharmonic functions in higher dimensions
- Boundary behavior of harmonic functions in higher dimensions

Generalizations of potential theory
- Pluriharmonic and plurisubharmonic functions
- Potentials and capacities on other spaces
- Harmonic, subharmonic, superharmonic functions on other spaces
- Fine potential theory; fine properties of sets and functions
- Other generalizations (nonlinear potential theory, etc.)
- Potential theory on Riemannian manifolds and other spaces
- Discrete potential theory
- Martin boundary theory
- Dirichlet forms

Potential theory on fractals and metric spaces
- Potential theory on fractals and metric spaces

Axiomatic potential theory
- Axiomatic potential theory

Computational methods for problems pertaining to potential theory

History of potential theory

Mathematical logic and foundations

General logic
- Substructural logics (including relevance, entailment, linear logic, Lambek calculus, BCK and BCI logics)
- Modal logic (including the logic of norms)
- Combinatory logic and lambda calculus
- Foundations of classical theories (including reverse mathematics)
- Subsystems of classical logic (including intuitionistic logic)
- Probability and inductive logic
- Fuzzy logic; logic of vagueness
- Logics of knowledge and belief (including belief change)
- Classical propositional logic
- Classical first-order logic
- Other applications of logic
- Abstract deductive systems
- Logic of natural languages
- Logic in computer science
- Decidability of theories and sets of sentences
- Other nonclassical logic
- Mechanization of proofs and logical operations
- Paraconsistent logics
- Intermediate logics
- Higher-order logic
- Many-valued logic
- Combined logics
- Temporal logic
- Type theory

Set theory
- Other notions of set-theoretic definability
- Nonclassical and second-order set theories
- Cardinal characteristics of the continuum
- Inner models, including constructibility, ordinal definability, and core models
- Other set-theoretic hypotheses and axioms
- Axiom of choice and related propositions
- Continuum hypothesis and Martin's axiom
- Generic absoluteness and forcing axioms
- Other classical set theory (including functions, relations, and set algebra)
- Consistency and independence results
- Other combinatorial set theory
- Ordinal and cardinal numbers
- Axiomatics of classical set theory and its fragments
- Theory of fuzzy sets, etc.
- Applications of set theory
- Other aspects of forcing and Boolean-valued models
- Ordered sets and their cofinalities; pcf theory
- Descriptive set theory
- Determinacy principles
- Partition relations
- Large cardinals

Model theory
- Logic with extra quantifiers and operators
- Categoricity and completeness of theories
- Interpolation, preservation, definability
- Other classical first-order model theory
- Ultraproducts and related constructions
- Models of other mathematical theories
- Second- and higher-order model theory
- Classification theory, stability and related concepts in model theory
- Models of arithmetic and set theory
- Model theory of finite structures
- Basic properties of first-order languages and structures
- Quantifier elimination, model completeness and related topics
- Properties of classes of models
- Models with special properties (saturated, rigid, etc.)
- Continuous model theory, model theory of metric structures
- Equational classes, universal algebra in model theory
- Nonclassical models (Boolean-valued, sheaf, etc.)
- Computable structure theory, computable model theory
- Applications of model theory
- Model theory of denumerable and separable structures
- Abstract elementary classes and related topics
- Set-theoretic model theory
- Other model constructions
- Model theory of ordered structures; o-minimality
- Logic on admissible sets
- Model-theoretic forcing
- Model-theoretic algebra
- Other infinitary logic
- Abstract model theory

Proof theory and constructive mathematics
- Cut-elimination and normal-form theorems
- Recursive ordinals and ordinal notations
- Relative consistency and interpretations
- Provability logics and related algebras (e.g., diagonalizable algebras)
- Metamathematics of constructive systems
- First-order arithmetic and fragments
- Proof-theoretic aspects of linear logic and other substructural logics
- Constructive and recursive analysis
- Proof theory, general (including proof-theoretic semantics)
- Other constructive mathematics
- Functionals in proof theory
- Intuitionistic mathematics
- Second- and higher-order arithmetic and fragments
- Gödel numberings and issues of incompleteness
- Complexity of proofs
- Structure of proofs

Philosophical aspects of logic and foundations
- Logic in the philosophy of science
- Philosophical and critical aspects of logic and foundations

Computational methods for problems pertaining to mathematical logic and foundations

History of mathematical logic and foundations

Computability and recursion theory
- Complexity of computation (including implicit computational complexity)
- Algorithmic randomness and dimension
- Higher-type and set recursion theory
- Turing machines and related notions
- Recursive functions and relations, subrecursive hierarchies
- Other degrees and reducibilities in computability and recursion theory
- Word problems, etc. in computability and recursion theory
- Computability and recursion theory on ordinals, admissible sets, etc.
- Abstract and axiomatic computability and recursion theory
- Automata and formal grammars in connection with logical questions
- Theory of numerations, effectively presented structures
- Other Turing degree structures
- Recursive equivalence types of sets and structures, isols
- Applications of computability and recursion theory
- Hierarchies of computability and definability
- Thue and Post systems, etc.
- Recursively (computably) enumerable sets and degrees
- Undecidability and degrees of sets of sentences
- Computation over the reals, computable analysis
- Inductive definability

Algebraic logic
- Logical aspects of Boolean algebras
- Other algebras related to logic
- Logical aspects of Łukasiewicz and Post algebras
- Logical aspects of lattices and related structures
- Cylindric and polyadic algebras; relation algebras
- Abstract algebraic logic
- Categorical logic, topoi
- Quantum logic

Nonstandard models
- Nonstandard models in mathematics
- Other applications of nonstandard models (economics, physics, etc.)
- Nonstandard models of arithmetic

Nonassociative rings and algebras

General nonassociative rings
- Structure theory for nonassociative algebras
- Automorphisms, derivations, other operators (nonassociative rings and algebras)
- Other n-ary compositions ($n \geq 3$)
- General theory of nonassociative rings and algebras
- Nonassociative division algebras
- Noncommutative Jordan algebras
- Radical theory (nonassociative rings and algebras)
- Free nonassociative algebras
- Nonassociative algebras satisfying other identities
- Quadratic algebras (but not quadratic Jordan algebras)
- Gröbner-Shirshov bases in nonassociative algebras
- Power-associative rings
- Ternary compositions
- Composition algebras
- Flexible algebras
- Leibniz algebras
- Valued algebras
- Superalgebras

Lie algebras and Lie superalgebras
- Automorphisms, derivations, other operators for Lie algebras and super algebras
- Homological methods in Lie (super)algebras
- Kac-Moody (super)algebras; extended affine Lie algebras; toroidal Lie algebras
- Representations of Lie algebras and Lie superalgebras, algebraic theory (weights)
- Lie (super)algebras associated with other structures (associative, Jordan, etc.)
- Infinite-dimensional Lie (super)algebras
- Lie algebras of linear algebraic groups
- Coadjoint orbits; nilpotent varieties
- Identities, free Lie (super)algebras
- Universal enveloping (super)algebras
- Quantum groups (quantized enveloping algebras) and related deformations
- Representations of Lie algebras and Lie superalgebras, analytic theory
- Solvable, nilpotent (super)algebras
- Applications of Lie algebras and superalgebras to integrable systems
- Cohomology of Lie (super)algebras
- Vertex operators; vertex operator algebras and related structures
- Applications of Lie (super)algebras to physics, etc.
- Lie bialgebras; Lie coalgebras
- Lie algebras of vector fields and related (super) algebras
- Virasoro and related algebras
- Hom-Lie and related algebras
- Exceptional (super)algebras
- Modular Lie (super)algebras
- Structure theory for Lie algebras and superalgebras
- Graded Lie (super)algebras
- Simple, semisimple, reductive (super)algebras
- Yang-Baxter equations and Rota-Baxter operators
- Color Lie (super)algebras
- Poisson algebras
- Root systems

Jordan algebras (algebras, triples and pairs)
- Associated geometries of Jordan algebras
- Associated manifolds of Jordan algebras
- Identities and free Jordan structures
- Division algebras and Jordan algebras
- Structure theory for Jordan algebras
- Simple, semisimple Jordan algebras
- Idempotents, Peirce decompositions
- Associated groups, automorphisms of Jordan algebras
- Exceptional Jordan structures
- Finite-dimensional structures of Jordan algebras
- Jordan structures associated with other structures
- Radicals in Jordan algebras
- Jordan structures on Banach spaces and algebras
- Applications of Jordan algebras to physics, etc.
- Super structures

Other nonassociative rings and algebras
- (non-Lie) Hom algebras and topics
- Mal'tsev rings and algebras
- (γ,δ)-rings, including $(1,-1)$-rings
- Right alternative rings
- Lie-admissible algebras
- Alternative rings
- Genetic algebras

Computational methods for problems pertaining to nonassociative rings and algebras

History of nonassociative rings and algebras

Order, lattices, ordered algebraic structures

Distributive lattices
- Heyting algebras (lattice-theoretic aspects)
- Post algebras (lattice-theoretic aspects)
- De Morgan algebras, Łukasiewicz algebras (lattice-theoretic aspects)
- Structure and representation theory of distributive lattices
- Fuzzy lattices (soft algebras) and related topics
- Pseudocomplemented lattices
- Other generalizations of distributive lattices
- Complete distributivity
- Lattices and duality
- Frames, locales
- MV-algebras

Lattices
- Continuous lattices and posets, applications
- Lattice ideals, congruence relations
- Representation theory of lattices
- Complete lattices, completions
- Structure theory of lattices
- Generalizations of lattices
- Free lattices, projective lattices, word problems
- Varieties of lattices
- Topological lattices

Modular lattices, complemented lattices
- Semimodular lattices, geometric lattices
- Modular lattices, Desarguesian lattices
- Complemented lattices, orthocomplemented lattices and posets
- Complemented modular lattices, continuous geometries

Ordered sets
- Combinatorics of partially ordered sets
- Galois correspondences, closure operators (in relation to ordered sets)
- Generalizations of ordered sets
- Algebraic aspects of posets
- Partial orders, general
- Total orders
- Semilattices

Boolean algebras (Boolean rings)
- Boolean algebras with additional operations (diagonalizable algebras, etc.)
- Structure theory of Boolean algebras
- Chain conditions, complete algebras
- Generalizations of Boolean algebras
- Stone spaces (Boolean spaces) and related structures
- Ring-theoretic properties of Boolean algebras
- Boolean functions

Ordered structures
- Ordered rings, algebras, modules
- Ordered topological structures (aspects of ordered structures)
- BCK-algebras, BCI-algebras (aspects of ordered structures)
- Ordered semigroups and monoids
- Ordered abelian groups, Riesz groups, ordered linear spaces
- Noether lattices
- Ordered groups
- Quantales

Computational methods for problems pertaining to ordered structures

History of ordered structures

Linear and multilinear algebra; matrix theory

Basic linear algebra
- Norms of matrices, numerical range, applications of functional analysis to matrix theory
- Quadratic and bilinear forms, inner products
- Linear equations (linear algebraic aspects)
- Canonical forms, reductions, classification
- Applications of generalized inverses
- Multilinear algebra, tensor calculus
- Exterior algebra, Grassmann algebras
- Inverse problems in linear algebra
- Determinants, permanents, traces, other special matrix functions
- Other algebras built from modules
- Matrix equations and identities
- Linear inequalities of matrices
- Vector spaces, linear dependence, rank, lineability
- Matrix exponential and similar functions of matrices
- Diagonalization, Jordan forms
- Algebraic systems of matrices
- Max-plus and related algebras
- Inequalities involving eigenvalues and eigenvectors
- Matrices over function rings in one or more variables
- Linear transformations, semilinear transformations
- Theory of matrix inversion and generalized inverses
- Miscellaneous inequalities involving matrices
- Clifford algebras, spinors
- Vector and tensor algebra, theory of invariants
- Matrix completion problems
- Factorization of matrices
- Commutativity of matrices
- Applications of Clifford algebras to physics, etc.
- Linear preserver problems
- Conditioning of matrices
- Eigenvalues, singular values, and eigenvectors
- Matrix pencils

Special matrices
- Toeplitz, Cauchy, and related matrices
- Random matrices (algebraic aspects)
- Matrices over special rings (quaternions, finite fields, etc.)
- Positive matrices and their generalizations; cones of matrices
- Boolean and Hadamard matrices
- Hermitian, skew-Hermitian, and related matrices
- Sign pattern matrices
- Matrices of integers
- Orthogonal matrices
- Matrix Lie algebras
- Stochastic matrices
- Fuzzy matrices

History of linear algebra

Field theory and polynomials

Real and complex fields
- Fields related with sums of squares (formally real fields, Pythagorean fields, etc.)
- Polynomials in real and complex fields: location of zeros (algebraic theorems)
- Polynomials in real and complex fields: factorization

General field theory
- Finite fields (field-theoretic aspects)
- Special polynomials in general fields
- Polynomials in general fields (irreducibility, etc.)
- Hilbertian fields; Hilbert's irreducibility theorem
- Equations in general fields
- Skew fields, division rings
- Field arithmetic

Connections between field theory and logic
- Nonstandard arithmetic and field theory
- Ultraproducts and field theory
- Decidability and field theory
- Model theory of fields

Field extensions
- Separable extensions, Galois theory
- Transcendental field extensions
- Inseparable field extensions
- Algebraic field extensions
- Inverse Galois theory

Differential and difference algebra
- p-adic differential equations
- Abstract differential equations
- Differential algebra
- Difference algebra

Topological fields
- General valuation theory for fields
- Non-Archimedean valued fields
- Formally p-adic fields
- Topological semifields
- Krasner-Tate algebras
- Ordered fields
- Normed fields
- Valued fields

Homological methods (field theory)
- Cohomological dimension of fields
- Galois cohomology

Computational methods for problems pertaining to field theory

Generalizations of fields
- Near-fields
- Semifields

History of field theory

K-Theory

Higher algebraic K-theory
- Computations of higher K-theory of rings
- Karoubi-Villamayor-Gersten K-theory
- Higher symbols, Milnor K-theory
- Negative K-theory, NK and Nil
- Algebraic K-theory of spaces
- K-theory and homology; cyclic homology and cohomology
- Q- and plus-constructions
- Symmetric monoidal categories

K-theory in number theory
- Étale cohomology, higher regulators, zeta and L-functions (K-theoretic aspects)
- Generalized class field theory (K-theoretic aspects)
- Symbols and arithmetic (K-theoretic aspects)

History of K-theory

Obstructions from topology
- Finiteness and other obstructions in K_0
- Whitehead (and related) torsion
- Obstructions to group actions (K-theoretic aspects)
- Surgery obstructions (K-theoretic aspects)

Topological K-theory
- Riemann-Roch theorems, Chern characters
- J-homomorphism, Adams operations
- Connective K-theory, cobordism
- Twisted K-theory; differential K-theory
- Geometric applications of topological K-theory
- Equivariant K-theory

Steinberg groups and K_2
- Central extensions and Schur multipliers
- K_2 and the Brauer group
- Symbols, presentations and stability of K_2
- Excision for K_2

K-theory and operator algebras
- K_0 as an ordered group, traces
- Kasparov theory (KK-theory)
- Ext and K-homology
- Index theory

Grothendieck groups and K_0
- K_0 of group rings and orders
- Stability for projective modules
- Efficient generation of modules
- Frobenius induction, Burnside and representation rings
- K_0 of other rings

K-theory of forms
- Hermitian K-theory, relations with K-theory of rings
- Stability for quadratic modules
- L-theory of group rings
- Witt groups of rings

Whitehead groups and K_1
- K_1 of group rings and orders
- Congruence subgroup problems
- Stability for linear groups
- Stable range conditions

K-theory in geometry
- Algebraic cycles and motivic cohomology (K-theoretic aspects)
- Relations of K-theory with cohomology theories
- K-theory of schemes

Miscellaneous applications of K-theory
- Miscellaneous applications of K-theory

Computational methods for problems pertaining to K-theory

General algebraic systems

Algebraic structures
- Structure theory of algebraic structures
- Relational systems, laws of composition
- Operations and polynomials in algebraic structures, primal algebras
- Subalgebras, congruence relations
- Automorphisms and endomorphisms of algebraic structures
- Applications of universal algebra in computer science
- Fuzzy algebraic structures
- Word problems (aspects of algebraic structures)
- Equational compactness
- Heterogeneous algebras
- Infinitary algebras
- Finitary algebras
- Partial algebras
- Unary algebras

Varieties
- Equational logic, Mal'tsev conditions
- Products, amalgamated products, and other kinds of limits and colimits
- Congruence modularity, congruence distributivity
- Subdirect products and subdirect irreducibility
- Injectives, projectives
- Lattices of varieties
- Free algebras

Other classes of algebras
- Natural dualities for classes of algebras
- Axiomatic model classes
- Categories of algebras
- Quasivarieties

Computational methods for problems pertaining to general algebraic systems

History of general algebraic systems

History and biography

History of mathematics and mathematicians
- History of mathematics in the 17th century
- History of mathematics in the 18th century
- History of mathematics in the 19th century
- History of mathematics in the 20th century
- History of mathematics in the 21st century
- History of mathematics in Ancient Babylon
- Sociology (and profession) of mathematics
- History of mathematics of the indigenous cultures of Africa, Asia, and Oceania
- History of mathematics of the indigenous cultures of Europe (pre-Greek, etc.)
- History of mathematics in Southeast Asia
- History of mathematics in Ancient Egypt
- Development of contemporary mathematics
- Collected or selected works; reprintings or translations of classics
- History of mathematics at institutions and academies (non-university)
- History of mathematics of the indigenous cultures of the Americas
- History of mathematics in the 15th and 16th centuries, Renaissance
- Future perspectives in mathematics
- General histories, source books
- History of mathematics in Paleolithic and Neolithic times
- History of mathematics in China
- History of mathematics in Japan
- History of mathematics in India
- History of mathematics in late antiquity and medieval Europe
- History of mathematics in Ancient Greece and Rome
- History of mathematics in the Golden Age of Islam
- Biographies, obituaries, personalia, bibliographies
- Ethnomathematics, general
- History of mathematics at specific universities
- Schools of mathematics
- Bibliographic studies
- Historiography