mini

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)

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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

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

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

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

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

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

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

$\overline{\partial}_b$ and $\overline{\partial}_b$-Neumann operators

Heat kernels in several complex variables

Other partial differential equations of complex analysis in several variables

$\overline{\partial}$ and $\overline{\partial}$-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

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

History of several complex variables and analytic spaces

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