58J37 Perturbations; asymptotics
58J40 Pseudodifferential and Fourier integral operators on manifolds [See also 35Sxx]
58J42 Noncommutative global analysis, noncommutative residues
58J45 Hyperbolic equations [See also 35Lxx]
58J47 Propagation of singularities; initial value problems
58J50 Spectral problems; spectral geometry; scattering theory [See also 35Pxx]
58J52 Determinants and determinant bundles, analytic torsion
58J53 Isospectrality
58J55 Bifurcation [See also 35B32]
58J60 Relations with special manifold structures (Riemannian, Finsler, etc.)
58J65 Diffusion processes and stochastic analysis on manifolds [See also 35R60, 60H10, 60J60]
58J70 Invariance and symmetry properties [See also 35A30]
58J72 Correspondences and other transformation methods (e.g. Lie-Bäcklund) [See also 35A22]
58J90 Applications
58J99 None of the above, but in this section

58Kxx Theory of singularities and catastrophe theory [See also 32Sxx, 37–XX]

58K05 Critical points of functions and mappings
58K10 Monodromy
58K15 Topological properties of mappings
58K20 Algebraic and analytic properties of mappings
58K25 Stability
58K30 Global theory
58K35 Catastrophe theory
58K40 Classification; finite determinacy of map germs
58K45 Singularities of vector fields, topological aspects
58K50 Normal forms
58K55 Asymptotic behavior
58K60 Deformation of singularities
58K65 Topological invariants
58K70 Symmetries, equivariance
58K99 None of the above, but in this section

58Z05 Applications to physics

60–XX PROBABILITY THEORY AND STOCHASTIC PROCESSES {For additional applications, see 11Kxx, 62–XX, 90–XX, 91–XX, 92–XX, 93–XX, 94–XX}

60–00 General reference works (handbooks, dictionaries, bibliographies, etc.)
60–01 Instructional exposition (textbooks, tutorial papers, etc.)
60–02 Research exposition (monographs, survey articles)
60–03 Historical (must also be assigned at least one classification number from Section 01)
60–04 Explicit machine computation and programs (not the theory of computation or programming)
60–06 Proceedings, conferences, collections, etc.
60–08 Computational methods (not classified at a more specific level) [See also 65C50]

60Axx Foundations of probability theory

60A05 Axioms; other general questions
60A10 Probabilistic measure theory {For ergodic theory, see 28Dxx and 60Fxx}
60A99 None of the above, but in this section

60Bxx Probability theory on algebraic and topological structures

60B05 Probability measures on topological spaces
60B10 Convergence of probability measures
60B11 Probability theory on linear topological spaces [See also 28C20]
60B12 Limit theorems for vector-valued random variables (infinite-dimensional case)
60B15 Probability measures on groups, Fourier transforms, factorization
60B99 None of the above, but in this section

60C05 Combinatorial probability

60D05 Geometric probability, stochastic geometry, random sets [See also 52A22, 53C65]

60Exx Distribution theory [See also 62Exx, 62Hxx]

60E05 Distributions: general theory
60E07 Infinitely divisible distributions; stable distributions
60E10 Characteristic functions; other transforms
60E15 Inequalities; stochastic orderings
60E99 None of the above, but in this section

60Fxx Limit theorems [See also 28Dxx, 60B12]

60F05 Central limit and other weak theorems
60F10 Large deviations
60F15 Strong theorems
60F17 Functional limit theorems; invariance principles
60F20 Zero-one laws
60F25 L^p-limit theorems
60F99 None of the above, but in this section

60Gxx Stochastic processes

60G05 Foundations of stochastic processes
60G07 General theory of processes
60G09 Exchangeability
60G10 Stationary processes
60G12 General second-order processes
60G15 Gaussian processes
60G17 Sample path properties
60G18 Self-similar processes
60G20 Generalized stochastic processes
60G25 Prediction theory [See also 62M20]
60G30 Continuity and singularity of induced measures
60G35 Applications (signal detection, filtering, etc.) [See also 62M20, 93E10, 93E11, 94Axx]
60G40 Stopping times; optimal stopping problems; gambling theory [See also 62L15, 91A60]
60G42 Martingales with discrete parameter
60G44 Martingales with continuous parameter
60G46 Martingales and classical analysis
60G48 Generalizations of martingales
60G50 Sums of independent random variables; random walks

60G51 Processes with independent increments
60G52 Stable processes
60G55 Point processes
60G57 Random measures
60G60 Random fields
60G70 Extreme value theory; extremal processes
60G99 None of the above, but in this section
60Hxx Stochastic analysis [See also 58J65]
60H05 Stochastic integrals
60H07 Stochastic calculus of variations and the Malliavin calculus
60H10 Stochastic ordinary differential equations [See also 34F05]
60H15 Stochastic partial differential equations [See also 35R60]
60H20 Stochastic integral equations
60H25 Random operators and equations [See also 47B80]
60H30 Applications of stochastic analysis (to PDE, etc.)
60H35 Computational methods for stochastic equations [See also 65C30]
60H40 White noise theory
60H99 None of the above, but in this section
60Jxx Markov processes
60J05 Markov processes with discrete parameter
60J10 Markov chains with discrete parameter
60J20 Applications of discrete Markov processes (social mobility, learning theory, industrial processes, etc.) [See also 90B30, 91D10, 91D35, 91E40]
60J22 Computational methods in Markov chains [See also 65C40]
60J25 Markov processes with continuous parameter
60J27 Markov chains with continuous parameter
60J35 Transition functions, generators and resolvents [See also 47D03, 47D07]
60J40 Right processes
60J45 Probabilistic potential theory [See also 31Cxx, 31D05]
60J50 Boundary theory
60J55 Local time and additive functionals
60J57 Multiplicative functionals
60J60 Diffusion processes [See also 58J65]
60J65 Brownian motion [See also 58J65]
60J70 Applications of diffusion theory (population genetics, absorption problems, etc.) [See also 92Dxx]
60J75 Jump processes
60J80 Branching processes (Galton-Watson, birth-and-death, etc.)
60J85 Applications of branching processes [See also 92Dxx]
60J99 None of the above, but in this section
60Kxx Special processes
60K05 Renewal theory
60K10 Applications (reliability, demand theory, etc.)
60K15 Markov renewal processes, semi-Markov processes
60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.) [See also 90Bxx]
60K25 Queueing theory [See also 68M20, 90B22]
60K30 Applications (congestion, allocation, storage, traffic, etc.) [See also 90Bxx]
60K35 Interacting random processes; statistical mechanics type models; percolation theory [See also 82B43, 82C43]
60K37 Processes in random environments
60K40 Other physical applications of random processes
60K99 None of the above, but in this section

62–XX STATISTICS
62–00 General reference works (handbooks, dictionaries, bibliographies, etc.)
62–01 Instructional exposition (textbooks, tutorial papers, etc.)
62–02 Research exposition (monographs, survey articles)
62–03 Historical (must also be assigned at least one classification number from Section 01)
62–04 Explicit machine computation and programs (not the theory of computation or programming)
62–06 Proceedings, conferences, collections, etc.
62–07 Data analysis
62–09 Graphical methods
62A01 Foundational and philosophical topics
62Bxx Sufficiency and information
62B05 Sufficient statistics and fields
62B10 Information-theoretic topics [See also 94A17]
62B15 Theory of statistical experiments
62B99 None of the above, but in this section
62Cxx Decision theory [See also 90B50, 91B06; for game theory, see 91A35]
62C05 General considerations
62C07 Complete class results
62C10 Bayesian problems; characterization of Bayes procedures
62C12 Empirical decision procedures; empirical Bayes procedures
62C15 Admissibility
62C20 Minimax procedures
62C25 Compound decision problems
62C99 None of the above, but in this section
62D05 Sampling theory, sample surveys
62Exx Distribution theory [See also 60Exx]
62E10 Characterization and structure theory
62E15 Exact distribution theory
62E17 Approximations to distributions (nonasymptotic)
62E20 Asymptotic distribution theory
62E99 None of the above, but in this section
62Fxx Parametric inference
62F03 Hypothesis testing
62F05 Asymptotic properties of tests
62F07 Ranking and selection
62F10 Point estimation
62F12 Asymptotic properties of estimators
62F15 Bayesian inference

62F25 Tolerance and confidence regions
62F30 Inference under constraints
62F35 Robustness and adaptive procedures
62F40 Bootstrap, jackknife and other resampling methods
62F99 None of the above, but in this section
62Gxx Nonparametric inference
62G05 Estimation
62G07 Density estimation
62G08 Nonparametric regression
62G09 Resampling methods
62G10 Hypothesis testing
62G15 Tolerance and confidence regions
62G20 Asymptotic properties
62G30 Order statistics; empirical distribution functions
62G32 Statistics of extreme values; tail inference
62G35 Robustness
62G99 None of the above, but in this section
62Hxx Multivariate analysis [See also 60Exx]
62H05 Characterization and structure theory
62H10 Distribution of statistics
62H11 Directional data; spatial statistics
62H12 Estimation
62H15 Hypothesis testing
62H17 Contingency tables
62H20 Measures of association (correlation, canonical correlation, etc.)
62H25 Factor analysis and principal components; correspondence analysis
62H30 Classification and discrimination; cluster analysis [See also 68T10]
62H35 Image analysis
62H99 None of the above, but in this section
62Jxx Linear inference, regression
62J02 General nonlinear regression
62J05 Linear regression
62J07 Ridge regression; shrinkage estimators
62J10 Analysis of variance and covariance
62J12 Generalized linear models
62J15 Paired and multiple comparisons
62J20 Diagnostics
62J99 None of the above, but in this section
62Kxx Design of experiments [See also 05Bxx]
62K05 Optimal designs
62K10 Block designs
62K15 Factorial designs
62K20 Response surface designs
62K25 Robust parameter designs
62K99 None of the above, but in this section
62Lxx Sequential methods
62L05 Sequential design
62L10 Sequential analysis
62L12 Sequential estimation
62L15 Optimal stopping [See also 60G40, 91A60]
62L20 Stochastic approximation
62L99 None of the above, but in this section
62Mxx Inference from stochastic processes
62M02 Markov processes: hypothesis testing
62M05 Markov processes: estimation
62M07 Non-Markovian processes: hypothesis testing
62M09 Non-Markovian processes: estimation
62M10 Time series, auto-correlation, regression, etc. [See also 91B84]
62M15 Spectral analysis
62M20 Prediction [See also 60G25]; filtering [See also 60G35, 93E10, 93E11]
62M30 Spatial processes
62M40 Random fields; image analysis
62M45 Neural nets and related approaches
62M99 None of the above, but in this section
62Nxx Survival analysis and censored data
62N01 Censored data models
62N02 Estimation
62N03 Testing
62N05 Reliability and life testing [See also 90B25]
62N99 None of the above, but in this section
62Pxx Applications [See also 90–XX, 91–XX, 92–XX]
62P05 Applications to actuarial sciences and financial mathematics
62P10 Applications to biology and medical sciences
62P12 Applications to environmental and related topics
62P15 Applications to psychology
62P20 Applications to economics [See also 91Bxx]
62P25 Applications to social sciences
62P30 Applications in engineering and industry
62P35 Applications to physics
62P99 None of the above, but in this section
62Q05 Statistical tables

65–XX NUMERICAL ANALYSIS

65–00 General reference works (handbooks, dictionaries, bibliographies, etc.)
65–01 Instructional exposition (textbooks, tutorial papers, etc.)
65–02 Research exposition (monographs, survey articles)
65–03 Historical (must also be assigned at least one classification number from Section 01)
65–04 Explicit machine computation and programs (not the theory of computation or programming)
65–05 Experimental papers
65–06 Proceedings, conferences, collections, etc.
65A05 Tables
65Bxx Acceleration of convergence
65B05 Extrapolation to the limit, deferred corrections
65B10 Summation of series
65B15 Euler-Maclaurin formula
65B99 None of the above, but in this section
65Cxx Probabilistic methods, simulation and stochastic differential equations {**For theoretical aspects, see 68U20 and 60H35**}
65C05 Monte Carlo methods
65C10 Random number generation
65C20 Models, numerical methods [See also 68U20]
65C30 Stochastic differential and integral equations