

University of Leeds Classification of Books

Mathematics

- [A General]**
- A-0.01 Periodicals
 - A-0.02 Series
 - A-0.03 Collections of essays, symposia etc.
 - A-0.04 Guides to the literature; bibliographies
 - A-0.05 Methodology and philosophy of mathematics
 - A-0.06 Study and teaching
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- A-0.19 Dictionaries, encyclopaedias (except statistics – see *Mathematics K*)
 - A-1 General texts (including mathematics for non-mathematicians)
 - A-1.1 Treatises on mathematics (e.g. Bourbaki)
 - A-1.2 Mathematics for engineers and scientists *See also Engineering B-1*
 - A-2 Logic and foundations
 - A-2.1 Set theory
 - A-4 Combinatorics (including graph theory)
- [B History & biography]**
- B-1 General works *No longer used; see History of Science E*
 - B-2 Biography *No longer used ; see History of Science C-9*
 - B-2.1 Collected works
- [C Number theory; Arithmetic]**
- C-0 Elementary and general works; Arithmetic
 - C-1 Algebraic number theory, field theory and polynomials
 - C-2 Special topics not in the above
- [D Algebra]**
- Algebras of functions: see F-4*
 - D-1 Elementary and general works
 - D-3 Linear and multilinear algebra; Matrix theory
 - D-4 Category theory, homological algebra
 - D-5 Rings and algebras
 - commutative
 - associative
 - non-associative (including Lié algebras)



- D-6 Group theory and generalisations (including quantum groups)
- D-6.1 Topological groups (including Lié groups)
- D-7 Special topics not in the above, including:
 - general mathematical systems
 - order, lattices, ordered algebraic systems
 - Boolean algebras

[E Geometry; Trigonometry]

- E-0 Elementary (up to S-level) and general works
- E-0.19 Dictionaries
- E-2 Classical geometry (including Euclidean, elliptic, projective, spherical and hyperbolic geometries)
- E-4 Algebraic geometry
- E-5 Differential geometry
- E-6 Topology, including:
 - algebraic topology
 - manifolds and cell-complexes
 - Riemann surfaces

For topological linear and vector spaces see F-4.1
For topological groups see D-6.1
- E-7 Special topics not in the above (including convex sets and geometric inequalities)

[F Analysis]

- F-0 Elementary (up to 1st year undergraduate level)
- F-1 General works (including collections of articles)
- F-2 Theory of functions of real and complex variables
 - F-2.1 functions of real variables (including vector calculus) sequences, series, summability *Asymptotic expansions see F-7*
 - F-2.2 functions of one complex variable *Analysis on manifolds see F-7*
 - F-2.3 functions of several complex variables & analytic spaces
 - F-3 Differential and difference equations *Stability theory see F-7*
 - F-3.1 ordinary differential equations
 - F-3.2 partial differential equations
 - F-3.3 finite difference and functional equations
 - F-4 Functional analysis and related topics
 - F-4.1 Functional analysis (including works written for engineers and scientists)
 - F-4.11 operator theory (including c^* and w^* algebras; von Neumann algebras)
 - F-4.2 Fourier analysis and Fourier transforms
 - abstract harmonic analysis
 - F-4.3 Integral transforms
 - F-4.4 Integral and integro-differential equations
 - F-6 Measure and integration
 - F-7 Special topics not in the above, including:
 - potential theory
 - approximation theory
 - global analysis, analysis on manifolds (including differentiable dynamical systems and stability theory)
 - F-7.3 calculus of variations

G-1 Tables and data

Except statistical tables – see Mathematics K-0.09

[H Theoretical mechanics]

- H-0.19 Dictionaries
- H-1 General works; mechanics of particles and systems
- H-2 Mechanics of solids (including general continuum mechanics)
- H-3 Fluid dynamics
 - H-3.1 incompressible
 - H-3.2 compressible
 - H-3.3 magnetohydrodynamics and electrohydrodynamics
 - H-3.4 aerohydrodynamics and aeronautics

[J Mathematical physics]

- J-1 Mathematical techniques (including general techniques for engineers and scientists); Includes string theory, supersymmetry *Preferred location (See also Physics A-2)*
- J-2 Relativity
- [J-3 Special topics, including thermodynamics, optics, electricity, magnetism]
No longer used

[K Probability & statistics]

- K-0.02 Series
- K-0.03 Collected works
- K-0.04 Bibliographies, guides to the literature
- [K-0.06 History and philosophy] *No longer used : see History of Science*
- K-0.09 Tables and data
- K-0.19 Dictionaries, encyclopaedias, handbooks
- K-0.2 Mathematics for statisticians
- K-1 Textbooks; general works (including introductory works on probability and statistics)
- K-2 Probability (including measure theoretic aspects, limit theorems, characteristic functions etc.)
- K-3 Stochastic processes (including Markov chains & processes, theory of queues; reliability theory; renewal theory; diffusion; applied probability; optimal stopping)
- K-4 Distribution theory (including binomial and normal distributions; shape, & other descriptive statistics)
- K-5 Statistical inference
 - K-5.1 parametric inference (including estimation and hypothesis testing)
 - K-5.2 decision theory (including Bayesian methods)
 - K-5.3 sequential methods (including order statistics, ranking)
 - K-5.4 non-parametric inference (including theory of sequential procedures)
 - K-5.9 other topics not in the above (including information theory)
- K-6 Linear inference (including regression analysis; variance and covariance analysis; functional and structural relationships; non-orthogonal data and missing values; curve fitting)
- K-7 Design of experiments (including particular designs e.g. randomised blocks, Latin squares, response surfaces, repeated and sequential experiments)
- K-8 Sampling techniques (including censoring and non-response; quality control)
- K-9 Multivariate analysis (including multidimensional scaling, cluster analysis, principal components, factor analysis, taxonomy, latent structure analysis, discriminant analysis)
- K-10 Time series (including forecasting; spectral theory)
- K-11 Computational statistics *Theory of computation and programming: see Computer Studies*

- K-11.1 programming techniques (including Monte Carlo techniques; curve fitting, algorithms)
- K-12 Applied statistics (including data analysis; error analysis)
- K-12.1 applied statistics in different disciplines e.g. science, engineering, medicine *For statistical works devoted to one subject see also the appropriate subject*

- K-13 Special topics
 - K-13.1 directional data
 - K-13.2 analysis of binary data
 - K-13.3 probit analysis
 - K-13.4 life-testing
 - K-13.9 others

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