

Bibliometric classifications used in statistics on the state of scientific research in Finland

Publications (e.g. articles) are assigned to a field of science based on the subject category used in Clarivate Analytics' Web of Science database or Elsevier's Scopus database for a scientific journal or conference publication. The Web of Science based data includes some 250 and the Scopus based data some 350 categories. Many publication channels are classified into several different categories.

The categories are grouped into larger clusters using a categorisation based on Statistics Finland's 2010 field of science classification.

Articles published in general scientific journals (Multidisciplinary sciences or general) have not been reassigned to different fields of science. This category includes articles published in the general scientific journals such as Nature, PLOS ONE, Proceedings of the National Academy of Sciences of the United States of America PNAS and Science as well as many lesser-known scientific journals.

Disciplinary classification used in statistics on the [state of scientific research in Finland](#): disciplines are clustered into larger groups in order to obtain an appropriate granularity for the analysis. The results of the bibliometric analyses are presented separately for individual disciplinary groups.

The following lists the disciplinary groups used in the bibliometric analyses as based on Statistics Finland's classification and on the Web of Science and Scopus categories.

Disciplinary groups based on Statistics Finland's classification

Disciplinary group	Discipline
Mathematics and statistics	Mathematics Statistics and probability
Physics, geosciences, space science	Physical sciences Astronomy and space science Geosciences
Chemistry, chemical engineering	Chemical sciences Chemical engineering
ICT and electrical engineering	Computer and information sciences Electronic, automation and communications engineering, electronics
Materials science, materials engineering	Materials engineering Medical engineering
Engineering, other fields	Architecture Civil and construction engineering Mechanical engineering Environmental engineering
Business studies and economics	Economics
Ecology, environmental science, plant biology	Ecology, evolutionary biology Environmental sciences Plant biology, microbiology, virology
Agricultural and forest sciences	Agriculture Forestry Veterinary science Food sciences
Biomedicine, biosciences	Biochemistry, cell and molecular biology Genetics, developmental biology, physiology Biomedicine Neurosciences Pharmacy
Clinical medicine	Clinical medicine Dentistry
Health sciences	Nutritional science Public health care, environmental and occupational health Sport and fitness sciences Nursing
Behavioural sciences	Psychology Educational sciences
Social sciences, other fields	Other social sciences
Humanities	Humanities
General scientific journals	General scientific journals



Disciplinary groups based on Web of Science subject categories

Disciplinary group

Discipline

Subject category

Mathematics and statistics

111 Mathematics

Logic

Mathematics

Mathematics, Applied

Mathematics, Interdisciplinary Applications

112 Statistics and probability

Statistics & Probability

Physics, geosciences, space science

114 Physical sciences

Acoustics

Imaging Science & Photographic Technology

Instruments & Instrumentation

Mechanics

Nuclear Science & Technology

Optics

Physics, Applied

Physics, Atomic, Molecular & Chemical

Physics, Condensed Matter

Physics, Fluids & Plasmas

Physics, Mathematical

Physics, Multidisciplinary

Physics, Nuclear

Physics, Particles & Fields

Spectroscopy

115 Astronomy and space science

Astronomy & Astrophysics

1171 Geosciences

Geochemistry & Geophysics

Geography, Physical

Geology

Geosciences, Multidisciplinary

Meteorology & Atmospheric Sciences

Mineralogy

Oceanography

Paleontology

Remote Sensing

Soil Science



Water Resources

Chemistry, chemical engineering

116 Chemical sciences

Chemistry, Analytical

Chemistry, Applied

Chemistry, Inorganic & Nuclear

Chemistry, Multidisciplinary

Chemistry, Organic

Chemistry, Physical

Crystallography

Electrochemistry

Polymer Science

215 Chemical engineering

Engineering, Chemical

Materials Science, Paper & Wood

ICT and electrical engineering

113 Computer and information sciences

Computer Science, Artificial Intelligence

Computer Science, Cybernetics

Computer Science, Information Systems

Computer Science, Interdisciplinary Applications

Computer Science, Software Engineering

Computer Science, Theory & Methods

213 Electronic, automation and communications engineering, electronics

Automation & Control Systems

Computer Science, Hardware & Architecture

Engineering, Electrical & Electronic

Robotics

Telecommunications

Materials science, materials engineering

216 Materials engineering

Materials Science, Biomaterials

Materials Science, Ceramics

Materials Science, Characterization, Testing

Materials Science, Coatings & Films

Materials Science, Composites

Materials Science, Multidisciplinary

Materials Science, Textiles

Nanoscience & Nanotechnology

217 Medical engineering

Engineering, Biomedical

Engineering, other fields

211 Architecture

Architecture

212 Civil and construction engineering



Construction & Building Technology

Engineering, Civil

Transportation Science & Technology

214 Mechanical engineering

Agricultural Engineering

Engineering, Aerospace

Engineering, Industrial

Engineering, Manufacturing

Engineering, Mechanical

Engineering, Multidisciplinary

Metallurgy & Metallurgical Engineering

Thermodynamics

218 Environmental engineering

Energy & Fuels

Engineering, Environmental

Engineering, Geological

Engineering, Marine

Engineering, Ocean

Engineering, Petroleum

Mining & Mineral Processing

Business studies and economics

510 Economics

Agricultural Economics & Policy

Business

Business, Finance

Economics

Management

Operations Research & Management Science

Social Sciences, Mathematical Methods

Ecology, environmental science, plant biology

1172 Environmental sciences

Environmental Sciences

1181 Ecology, evolutionary biology

Biodiversity Conservation

Biology

Ecology

Entomology

Evolutionary Biology

Limnology

Marine & Freshwater Biology

Ornithology

Zoology

1183 Plant biology, microbiology, virology

Biotechnology & Applied Microbiology

Microbiology

Mycology



Plant Sciences

Virology

Agricultural and forest sciences

410 Agriculture

Agriculture, Dairy & Animal Science

Agriculture, Multidisciplinary

Agronomy

Fisheries

Horticulture

4112 Forestry

Forestry

413 Veterinary science

Veterinary Sciences

415 Food sciences

Food Science & Technology

Biomedicine, biosciences

1182 Biochemistry, cell and molecular biology

Biochemical Research Methods

Biochemistry & Molecular Biology

Biophysics

Cell and Tissue Engineering

Cell Biology

Mathematical & Computational Biology

Microscopy

1184 Genetics, developmental biology,
physiology

Developmental Biology

Genetics & Heredity

Reproductive Biology

3111 Biomedicine

Anatomy & Morphology

Immunology

Medical Laboratory Technology

Medicine, Research & Experimental

Parasitology

Pathology

Physiology

3112 Neurosciences

Behavioral Sciences

Neurosciences

317 Pharmacy

Chemistry, Medicinal

Pharmacology & Pharmacy

Toxicology

Clinical medicine

312 Clinical medicine



Allergy
 Andrology
 Anesthesiology
 Audiology, Speech-Language Pathology
 Cardiac & Cardiovascular System
 Clinical Neurology
 Critical Care Medicine
 Dermatology
 Emergency Medicine
 Endocrinology & Metabolism
 Gastroenterology & Hepatology
 Geriatrics and Gerontology
 Hematology
 Infectious Diseases
 Integrative & Complementary Medicine
 Medicine, General & Internal
 Medicine, Legal
 Neuroimaging
 Obstetrics & Gynecology
 Oncology
 Ophthalmology
 Orthopedics
 Otorhinolaryngology
 Pediatrics
 Peripheral Vascular Disease
 Psychiatry
 Radiology, Nuclear Medicine & Medical Imaging
 Respiratory System
 Rheumatology
 Surgery
 Transplantation
 Tropical Medicine
 Urology & Nephrology
 313 Dentistry
 Dentistry, Oral Surgery & Medicine
Health sciences
 3141 Nutritional science
 Nutrition & Dietetics
 3142 Public health care, environmental and occupational health
 Gerontology
 Health Care Sciences & Services
 Health Policy & Services
 Medical Ethics
 Medical Informatics
 Primary Health Care
 Public, Environmental & Occupational Health



ACADEMY OF FINLAND

Rehabilitation

Social Sciences, Biomedical

Substance Abuse

315 Sport and fitness sciences

Sport Sciences

316 Nursing

Nursing

Behavioural sciences

515 Psychology

Psychology

Psychology, Applied

Psychology, Biological

Psychology, Clinical

Psychology, Developmental

Psychology, Educational

Psychology, Experimental

Psychology, Mathematical

Psychology, Multidisciplinary

Psychology, Psychoanalysis

Psychology, Social

516 Educational sciences

Education & Educational Research

Education, Scientific Disciplines

Education, Special

Social sciences, other fields

530 Other social sciences

Anthropology

Area Studies

Communication

Criminology & Penology

Demography

Environmental Studies

Ergonomics

Ethnic Studies

Family Studies

Geography

Hospitality, Leisure, Sport & Tourism

Industrial Relations & Labor

Information Science and Library Science

International Relations

Law

Planning & Development

Political Science

Public Administration

Social Issues

Social Sciences, Interdisciplinary



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Social Work
Sociology
Transportation
Women's Studies

Humanities

600 Humanities

Archaeology
Art
Asian Studies
Classics
Cultural Studies
Dance
Ethics
Film, Radio, Television
Folklore
History
History & Philosophy of Science
History of Social Sciences
Humanities, Multidisciplinary
Language & Linguistics Theory
Linguistics
Literary Reviews
Literary Theory & Criticism
Literature
Literature, African, Australian, Canadian
Literature, American
Literature, British Isles
Literature, German, Dutch, Scandinavian
Literature, Romance
Literature, Slavic
Medieval & Renaissance Studies
Music
Philosophy
Poetry
Religion
Theater
Urban Studies

General scientific journals

700 General scientific journals

Multidisciplinary Sciences



Disciplinary groups based on Scopus subject areas

Disciplinary group

Discipline

Subject area

Mathematics and statistics

111 Mathematics

Mathematics(all)

Mathematics (miscellaneous)

Algebra and Number Theory

Analysis

Applied Mathematics

Computational Mathematics

Control and Optimization

Discrete Mathematics and Combinatorics

Geometry and Topology

Logic

Modelling and Simulation

Numerical Analysis

112 Statistics and probability

Statistics, Probability and Uncertainty

Statistics and Probability

Physics, geosciences, space science

114 Physical sciences

Physics and Astronomy(all)

Spectroscopy

Mathematical Physics

Physics and Astronomy (miscellaneous)

Acoustics and Ultrasonics

Condensed Matter Physics

Instrumentation

Nuclear and High Energy Physics

Atomic and Molecular Physics, and Optics

Radiation

Statistical and Nonlinear Physics

Surfaces and Interfaces

115 Astronomy and space science

Space and Planetary Science

Astronomy and Astrophysics

1171 Geosciences

Earth and Planetary Sciences(all)

Soil Science

Earth and Planetary Sciences (miscellaneous)



Atmospheric Science
 Computers in Earth Sciences
 Earth-Surface Processes
 Economic Geology
 Geochemistry and Petrology
 Geology
 Geophysics
 Oceanography
 Palaeontology
 Stratigraphy
 Water Science and Technology

Chemistry, chemical engineering

116 Chemical sciences

Chemistry(all)
 Chemistry (miscellaneous)
 Analytical Chemistry
 Electrochemistry
 Inorganic Chemistry
 Organic Chemistry
 Physical and Theoretical Chemistry

215 Chemical engineering

Chemical Engineering(all)
 Chemical Engineering (miscellaneous)
 Catalysis
 Filtration and Separation
 Fluid Flow and Transfer Processes
 Process Chemistry and Technology
 Colloid and Surface Chemistry
 Bioengineering

ICT and electrical engineering

113 Computer and information sciences

Computer Science (miscellaneous)
 Artificial Intelligence
 Computational Theory and Mathematics
 Computer Graphics and Computer-Aided Design
 Computer Science Applications
 Computer Vision and Pattern Recognition
 Human-Computer Interaction
 Information Systems
 Software
 Theoretical Computer Science

213 Electronic, automation and communications engineering, electronics

Computer Networks and Communications
 Hardware and Architecture
 Signal Processing
 Control and Systems Engineering



Electrical and Electronic Engineering

Media Technology

Materials science, materials engineering

216 Materials engineering

Materials Science(all)

Mechanics of Materials

Materials Science (miscellaneous)

Biomaterials

Ceramics and Composites

Electronic, Optical and Magnetic Materials

Materials Chemistry

Metals and Alloys

Polymers and Plastics

Surfaces, Coatings and Films

217 Medical engineering

Biomedical Engineering

Health Informatics

Health Information Management

Engineering, other fields

211 Architecture

Architecture

212 Civil and construction engineering

Civil and Structural Engineering

Building and Construction

Rakennus- ja yhdyskuntatekniikka

214 Mechanical engineering

Safety, Risk, Reliability and Quality

Aerospace Engineering

Automotive Engineering

Computational Mechanics

Industrial and Manufacturing Engineering

Mechanical Engineering

218 Environmental engineering

Energy(all)

Waste Management and Disposal

Geotechnical Engineering and Engineering

Geology

Energy (miscellaneous)

Energy Engineering and Power Technology

Fuel Technology

Nuclear Energy and Engineering

Renewable Energy, Sustainability and the

Environment

Ocean Engineering

Environmental Engineering

Business studies and economics

510 Economics



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Business, Management and Accounting(all)
 Business, Management and Accounting
 (miscellaneous)
 Accounting
 Business and International Management
 Management Information Systems
 Management of Technology and Innovation
 Marketing
 Organizational Behavior and Human Resource
 Management
 Strategy and Management
 Industrial relations
 Decision Sciences(all)
 Decision Sciences (miscellaneous)
 Information Systems and Management
 Management Science and Operations Research
 Economics, Econometrics and Finance(all)
 Economics, Econometrics and Finance
 (miscellaneous)
 Economics and Econometrics
 Finance

Ecology, environmental science, plant biology

1172 Environmental sciences

Environmental Science(all)
 Environmental Science (miscellaneous)
 Environmental Chemistry
 Global and Planetary Change
 Management, Monitoring, Policy and Law
 Nature and Landscape Conservation
 Pollution

1181 Ecology, evolutionary biology

Aquatic Science
 Ecology, Evolution, Behavior and Systematics
 Ecological Modelling
 Ecology
 Insect Science

1183 Plant biology, microbiology, virology

Plant Science
 Applied Microbiology and Biotechnology
 Microbiology
 Virology

Agricultural and forest sciences

410 Agriculture

Agricultural and Biological Sciences(all)
 Agronomy and Crop Science
 Animal Science and Zoology
 Horticulture



4112 Forestry

Forestry

413 Veterinary science

veterinary(all)

veterinary (miscellaneous)

Equine

Food Animals

Small Animals

Food Science

Biomedicine, biosciences

1182 Biochemistry, cell and molecular biology

Biochemistry, Genetics and Molecular

Biology(all)

Biochemistry, Genetics and Molecular Biology

(miscellaneous)

Ageing

Biochemistry

Biophysics

Biotechnology

Cell Biology

Molecular Biology

Structural Biology

Agricultural and Biological Sciences

(miscellaneous)

1184 Genetics, developmental biology,

physiology

Developmental Biology

Genetics

3111 Biomedicine

Physiology

Cancer Research

Clinical Biochemistry

Endocrinology

Molecular Medicine

Immunology and Microbiology(all)

Immunology and Microbiology (miscellaneous)

Immunology

Parasitology

Anatomy

Biochemistry, medical

Histology

Immunology and Allergy

Microbiology (medical)

Pathology and Forensic Medicine

Physiology (medical)

Medical Laboratory Technology

Embryology



3112 Neurosciences

Neuroscience(all)
 Neuroscience (miscellaneous)
 Behavioral Neuroscience
 Biological Psychiatry
 Cellular and Molecular Neuroscience
 Cognitive Neuroscience
 Developmental Neuroscience
 Endocrine and Autonomic Systems
 Neurology
 Sensory Systems

317 Pharmacy

Pharmacology, Toxicology and
 Pharmaceutics(all)
 Pharmacology, Toxicology and Pharmaceutics
 (miscellaneous)
 Drug Discovery
 Pharmaceutical Science
 Pharmacology
 Toxicology
 Pharmacy

Clinical medicine

312 Clinical medicine

Medicine(all)
 Medicine (miscellaneous)
 Anesthesiology and Pain Medicine
 Cardiology and Cardiovascular Medicine
 Critical Care and Intensive Care Medicine
 Complementary and alternative medicine
 Dermatology
 Drug guides
 Emergency Medicine
 Endocrinology, Diabetes and Metabolism
 Gastroenterology
 Genetics(clinical)
 Geriatrics and Gerontology
 Hematology
 Hepatology
 Internal Medicine
 Infectious Diseases
 Nephrology
 Clinical Neurology
 Obstetrics and Gynaecology
 Oncology
 Ophthalmology
 Orthopedics and Sports Medicine
 Otorhinolaryngology



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Pediatrics, Perinatology, and Child Health

Pharmacology (medical)

Psychiatry and Mental health

Pulmonary and Respiratory Medicine

Radiology Nuclear Medicine and imaging

Reproductive Medicine

Reviews and References, Medical

Rheumatology

Surgery

Transplantation

Urology

Emergency Medical Services

Optometry

Podiatry

Radiological and Ultrasound Technology

Respiratory Care

Speech and Hearing

Health Professions(all)

Medical Terminology

313 Dentistry

Dentistry(all)

Dentistry (miscellaneous)

Dental Assisting

Dental Hygiene

Oral Surgery

Orthodontics

Periodontics

Health sciences

3141 Nutritional science

Nutrition and Dietetics

3142 Public health care, environmental and occupational health

Chemical Health and Safety

Health, Toxicology and Mutagenesis

Epidemiology

Family Practice

Health Policy

Public Health, Environmental and Occupational Health

Health(social science)

Gerontology

Safety Research

Health Professions (miscellaneous)

315 Sport and fitness sciences

Rehabilitation

Chiropractics

Complementary and Manual Therapy



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Occupational Therapy
Physical Therapy, Sports Therapy and
Rehabilitation

316 Nursing

Nursing(all)
Nursing (miscellaneous)
Advanced and Specialised Nursing
Assessment and Diagnosis
Care Planning
Community and Home Care
Critical Care
Emergency
Fundamentals and skills
Issues, ethics and legal aspects
Leadership and Management
LPN and LVN
Maternity and Midwifery
Medical–Surgical
Nurse Assisting
Oncology(nursing)
Pathophysiology
Pediatrics
Pharmacology (nursing)
Psychiatric Mental Health
Research and Theory
Review and Exam Preparation

Behavioural sciences

515 Psychology

Psychology(all)
Psychology (miscellaneous)
Applied Psychology
Clinical Psychology
Developmental and Educational Psychology
Experimental and Cognitive Psychology
Neuropsychology and Physiological Psychology
Social Psychology
Life-span and Life-course Studies

516 Educational sciences

Education
Medical Assisting and Transcription

Social sciences, other fields

530 Other social sciences

Tourism, Leisure and Hospitality Management
Social Sciences(all)
Social Sciences (miscellaneous)
Development
Geography, Planning and Development



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Human Factors and Ergonomics
 Law
 Library and Information Sciences
 Sociology and Political Science
 Transportation
 Anthropology
 Communication
 Demography
 Gender Studies
 Political Science and International Relations
 Public Administration
 Urban Studies

Humanities

600 Humanities

Arts and Humanities(all)
 Arts and Humanities (miscellaneous)
 History
 Language and Linguistics
 Archaeology
 Classics
 Conservation
 History and Philosophy of Science
 Literature and Literary Theory
 Museology
 Music
 Philosophy
 Religious studies
 Visual Arts and Performing Arts
 Archaeology
 Linguistics and Language
 Cultural Studies

General scientific journals

700 General scientific journals

General

