

Attached Table 3 Appendix Table of Keywords “Categories, Areas, Disciplines and Research Fields”

1) The first stage of the screening of the research fields followed by A or B in each category of the division column is carried out in two separate groups. The basis for this division in two groups is the keywords shown in all the research categories (except for “Overseas Academic Research”). Make sure to select A or B based on the keyword, when applying for the research fields in the list.

2) The first stage of the screening of the research fields followed by the numbers 1 to 5 in each category of the division column is carried out in separate groups. The basis for this division in separate groups is the keywords shown in “Scientific Research (C)”. Make sure to select a number from 1 to 5 based on the keyword, when applying for the research fields in the list for “Scientific Research (C)”. For research fields that include ※A or ※B, choose either A or B and division number 1 or 2.

Category: Integrated Disciplines

Area: Informatics

Discipline: Principles of Informatics

Item Number	Research Field	Screening Sub-panel Number / Keyword
1001	Theory of informatics	1 Theory of computation
		2 Automata theory / Formal language theory
		3 Mathematical theory of programs
		4 Computational complexity theory
		5 Algorithm theory
		6 Cryptosystem
		7 Discrete structure
		8 Computational learning theory
		9 Theory of quantum computation
		10 Mathematical logic
		11 Information theory
		12 Coding theory
1002	Mathematical informatics	1 Optimization theory
		2 Mathematical finance
		3 Mathematical system theory
		4 System control theory
		5 System analysis
		6 System methodology
		7 System modeling
		8 System simulation
		9 Combinatorial optimization
		10 Queueing theory
1003	Statistical science	1 Research survey and experimental design
		2 Multivariate analysis
		3 Time series analysis
		4 Statistical pattern recognition
		5 Statistical inference
		6 Computational statistics and computer aided statistics
		7 Statistical prediction and control
		8 Model selection
		9 Pharmaceutical / genome statistical analysis
		10 Behaviormetrics
		11 Spatial / environmental statistics
		12 Statistics education
		13 Statistical quality control
		14 Statistical learning theory
		15 Social research and analysis plan
		16 Data science
		17 Hypothesis testing

(Discipline: Principles of Informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1102	Software	1 Programming language
		2 Programming methodology
		3 Programming language processor
		4 Parallel distributed computing
		5 Operating system
		6 High-dependable system
		7 Virtualization technology
		8 Software security
		9 Cloud computing infrastructure
		10 Software engineering
		11 Specification and verification
		12 Development environment
		13 Development management
1103	Information network	1 Network architecture
		2 Network protocol
		3 Internet
		4 Mobile network
		5 Overlay network
		6 Sensor network
		7 Traffic engineering
		8 Network design, operation, management and analysis technology
		9 Ubiquitous computing
		10 Service provision infrastructure
		11 Information home appliances
1104	Multimedia database	1 Data model
		2 Relational database
		3 Database system
		4 Multimedia information acquisition
		5 Multimedia information processing
		6 Multimedia information representation
		7 Multimedia information generation
		8 Information retrieval
		9 Structured document
		10 Content distribution and management
		11 Geographic information system
		12 Metadata
		13 Big data analysis and utilization
1105	High performance computing	1 Parallel processing
		2 Distributed processing
		3 Grid and Cloud computing
		4 Numerical analysis
		5 Visualization
		6 Computer graphics
		7 High performance computing application

Discipline: Principles of Informatics

Item Number	Research Field	Screening Sub-panel Number / Keyword
1101	Computer system	1 Computer architecture
		2 Circuit and system
		3 LSI design technology
		4 Reconfigurable system
		5 High-dependable architecture
		6 Low power technology
		7 hardware / software co-design
		8 Embedded system

(Discipline: Principles of Informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1106	Information security	1 Access control
		2 Personal identification
		3 Cryptography
		4 Authentication
		5 Security evaluation / audit
		6 Malware countermeasures
		7 Network security
		8 Unauthorized access countermeasure
		9 Software protection
		10 Privacy protection
		11 Information filtering
		12 Digital forensics
		13 Biometrics
		14 Tamper resistance technology

(Discipline: Human informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1205	Soft computing	1 Neural network
		2 Genetic algorithm
		3 Fuzzy theory
		4 Chaos
		5 Fractal
		6 Complex systems
		7 Probabilistic information processing
1206	Intelligent robotics	1 Intelligent robot
		2 Behavior and environment recognition
		3 Motion planning
		4 Sensory behavior system
		5 Autonomous system
		6 Digital human model
		7 Real world information processing
		8 Physical agents
		9 Intelligent roomAnimation
1207	Kansei informatics	1 Kansei design
		2 Kansei expression
		3 Kansei recognition
		4 Kansei cognitive science, Kansei psychology
		5 Kansei robotics
		6 Kansei measurement evaluation
		7 Ambiguity and kansei
		8 Kansei information processing
		9 Kansei database
		10 Kansei interface
		11 Kansei physiology
		12 Kansei material products
		13 Sensitivity industry
		14 Kansei environmental science
		15 Kansei sociology
		16 Kansei philosophy
		17 Kansei pedagogy
		18 Kansei brain science
		19 Kansei management

Discipline: Human informatics

Item Number	Research Field	Screening Sub-panel Number / Keyword
1201	Cognitive science	1 Evolution, development, learning
		2 Cognition, memory, education
		3 Thought, inference, problem solving
		4 Sensation, perception, kansei
		5 Emotion / Feeling / Behavior
		6 Cognitive psychology
		7 Comparative cognitive psychology
		8 Cognitive philosophy
		9 Brain cognitive science
		10 Cognitive linguistics
		11 Comparative decision making theory
		12 Cognitive engineering
		13 Cognitive archaeology
		14 Cognitive model
		15 Sociability
		16 Law and psychology
		17 Safety and human factor
1202	Perceptual information processing	1 Pattern recognition
		2 Image processing
		3 Computer vision
		4 Computational photography
		5 Human measurement
		6 Intelligent image editing
		7 Visual media processing
		8 Image database
		9 Speech processing
		10 Acoustic information processing
		11 Speech / Sound database
		12 Information sensing
		13 Sensor fusion
		14 Sensing devices / systems
		15 Tangible sensing
1203	Human interface and interaction	1 Human interface
		2 Multi-modal interface
		3 Human-computer interaction
		4 CSCW
		5 Groupware
		6 Virtual reality
		7 Augmented Reality
		8 Mixed reality
		9 Realistic communication
		10 Wearable device
		11 Usability
		12 Ergonomics
1204	Intelligent informatics	1 Search, logic, inference algorithms
		2 Machine learning
		3 Knowledge acquisition
		4 Knowledge-based system
		5 Intelligent system architecture
		6 Intelligent information processing
		7 Natural language processing
		8 Knowledge discovery and data mining
		9 Ontology
		10 Human-agent interaction
		11 Multi-agent system

Discipline: Frontiers of informatics

(Discipline: Frontiers of informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword	Item Number	Research Field	Screening Sub-panel Number / Keyword		
1301	Life / Health / Medical informatics	1 Bioinformatics	1303	Library and information science/ Humanistic social informatics	A [Library and information science]		
		2 Genome information processing			1 Library science		
		3 Proteome information processing			2 Information services		
		4 Computer simulation			3 Library information systems		
		5 Life informatics			4 Digital archives		
		6 Biological information			5 Information organization		
		7 Neuroinformatics			6 Information retrieval		
		8 Neural information processing			7 Information media		
		9 Artificial life system			8 Bibliometrics and scientometrics		
		10 Molecular computing			9 Construction and management of information resources		
		11 DNA computing			B [Humanistic social informatics]		
		12 Medical information			10 Information ethics		
		13 Diagnostic imaging			11 Media environment		
		14 Remote diagnosis and treatment			12 Literature information		
		15 Sanitation information			13 Historical information		
		16 Health information			14 Information sociology		
		17 Medical image			15 Law information		
		18 Intracellular logistics analysis			16 Information economics		
1302	Web informatics, Service informatics	A [Web informatics]	1304	Learning support system	1 Media Literacy		
		1 Web system			2 Learning media		
		2 Web computing			3 Social media		
		3 Social web			4 Learning content development support		
		4 Semantic web			5 Learning management system		
		5 Recommendation system			6 Intelligent Learning support system		
		6 Web service			7 Remote learning		
		7 Web mining			8 Distributed collaborative learning support system		
		8 Web intelligence			9 Project-based learning support system		
		9 Social network analysis			10 e-Learning		
		10 Network community			11 Use and evaluation		
		B [Service informatics]			1305	Entertainment and game informatics	1 Music information processing
		11 Service engineering					2 Performance support
		12 Service management					3 3D content and animation
		13 Quality of Service					4 Game programming
		14 Queue					5 Network entertainment
		15 Business model					6 Media art
		16 Service-oriented architecture					7 Interactive art
		17 Knowledge management					8 Digital archives
		18 Educational services					9 Digital museum / Virtual museum
		19 Medical welfare service					10 Information culture
		20 Intelligent transport systems					
		21 Financial service					
		22 Social and environmental service					
23 Smart grid							
24 Management of technology							

Area: Environmental science

Discipline: Environmental analyses and evaluation

Item Number	Research Field	Screening Sub-panel Number / Keyword
1401	Environmental dynamic analysis	1 Environmental change
		2 Biogeochemical cycle
		3 Environmental measurements
		4 Environmental model
		5 Environmental information
		6 Global warming
		7 Global change of water cycle
		8 Environmental monitoring of the polar regions
		9 Chemical oceanography
		10 Biological oceanography
		11 Remote sensing
1402	Risk sciences of radiation and chemicals	1 Environmental radiation
		2 Protection
		3 Basic process
		4 Dosimetry and assessment
		5 Damage
		6 Response
		7 Repair
		8 Sensitivity
		9 Impact on life
		10 Risk assessment
		11 Radiation management and control
		12 Toxicology
		13 Toxic substance to human
		14 Estimation of trace chemicals pollution
		15 Endocrine disrupting substances
1403	Environmental impact assessment	1 Terrestrial, aquatic, and atmospheric impact assessment
		2 Impact assessment on ecosystem
		3 Impact assessment methods
		4 Impact assessment on human health
		5 Environmental impact assessment on the future generation
		6 Human activities in polar regions
		7 Environmental monitoring
		8 Model simulation
		9 Environmental impact assessment

Discipline: Environmental conservation

Item Number	Research Field	Screening Sub-panel Number / Keyword
1501	Environmental engineering and reduction of environmental burden	1 Reduction of wastewater, exhaust gas and solid wastes
		2 Appropriate treatment and disposal
		3 Closed process and integrated pollution control
		4 Pollutants separation and removal technologies
		5 Control of noise, vibration and ground subsidence
		6 Environmental analysis
		7 Simplified analysis and monitoring
1502	Modeling and technologies for environmental conservation and remediation	1 Environmental impact analysis
		2 Environmental pollution survey and evaluation
		3 Pollutants removal and remediation technologies
		4 Monitoring and modeling of pollutants behavior in environment
		5 Biological treatment and remediation
		6 Impact on environment and ecosystem
		7 Surface water, ground water and soil

(Discipline: Environmental conservation)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1503	Environmental conscious materials and recycle	1 Design and production of recycle materials
		2 Reduction, reuse, recycle (3R)
		3 Recovery of valuables
		4 Separation and purification
		5 Appropriate treatment and disposal
		6 Recycling and life cycle assessment(LCA)
		7 Environmental conscious design
		8 Green productions
		9 Zero-emission
		10 Chemistry for material recycle
1504	Environmental risk control and evaluation	1 Identification and analytical evaluation of pollutants
		2 Monitoring
		3 Transport, diffusion and accumulation of pollutants
		4 Environmental criteria and standards
		5 Life environment and health items
		6 Emission quality standards
		7 Evaluation of cross-border pollution
		8 Chemicals management
		9 Exposure scenario
		10 Risk evaluation
		11 Precautionary principle
		12 Biodegradation and bioaccumulation
		13 Genetic and ecological toxicities
		14 Risk communication

Discipline: Sustainable and environmental system development

Item Number	Research Field	Screening Sub-panel Number / Keyword
1601	Environmental and ecological symbiosis	1 Biodiversity
		2 Ecosystem functions and services
		3 Ecological risks
		4 Ecosystem impact analysis
		5 Ecosystem management and conservation
		6 Remote sensing
		7 Landscape and ecosystem
		8 Rehabilitation of environment ecosystem
		9 Mitigation
		10 Ecological engineering
1602	Design and evaluation of sustainable and environmental conscious system	1 Sound material recycle system
		2 Low carbon society
		3 Renewable energy
		4 Biomass utilization
		5 Design and planning of environmental conscious areas
		6 Water resources and water use system
		7 Industrial symbiosis
		8 Material and energy flow analysis
		9 Life cycle assessment (LCA)
		10 Integrated pollution prevention and control

(Discipline: Sustainable and environmental system development)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1603	Environmental policy and social systems	1 Environmental philosophy and ethics
		2 Environmental justice
		3 Environmental economics
		4 Environmental laws
		5 Environmental information
		6 Environmental geographical information
		7 Environmental education
		8 Environmental management
		9 Environment and social activities
		10 Environmental standard and auditing
		11 Consensus forming
		12 Environmental safety and security
		13 Corporate social responsibility
		14 Social and economical system
		15 Public system and management
		16 Sustainable development

Area: Complex systems

Discipline: Design science

Item Number	Research Field	Screening Sub-panel Number / Keyword
1651	Design science	1 Information design(Communication, media, contents, interaction, interface)
		2 Environmental design (Architecture, Urban, Landscape)
		3 Industrial design (Product design, universal design)
		4 Art
		5 Aesthetics
		6 Design history
		7 Theory for design
		8 Design standard
		9 Design support
		10 3D modeling & acoustic modeling
		11 Analysis & evaluation for design
		12 Design education

Discipline: Human life science

Item Number	Research Field	Screening Sub-panel Number / Keyword
1701	Home economics/ Human life	1 Family resource management
		2 Family finance and consumer issues
		3 Family
		4 Lifestyle
		5 Information for living
		6 Human life and culture
		7 Life of the elderly
		8 Well-being for individual and family
		9 Child care, Child rearing
		10 Home economics education
		11 Consumer education
		12 Philosophy of home economics
		13 Materials and goods for living
		14 Design for living
		15 Manufacturing , Skills of making products for daily life
1702	Clothing life/Dwelling life	1 Human life and clothing
		2 Clothing and environment
		3 Dyeing and finishing treatment
		4 Clothing design and manufacturing
		5 Clothing materials
		6 History of costume
		7 Clothing culture
		8 Clothing psychology
		9 Dwelling life
		10 Planning of housing
		11 Housing management
		12 Housing history
		13 Interior, housing and living environment design
		14 Dwelling environment and equipment
		15 Housing structure and material
		16 City planning and community policy
		17 Child-raising environment
		18 Housing for the elderly
		19 Housing environment for the elderly and people with disabilities
		20 Dwelling culture
		21 Housing information and housing education

(Discipline: Human life science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1703	Eating habits	A [Food and cooking]
		1 Cooking and processing
		2 Food storage
		3 Sensory evaluation
		4 Food materials
		5 Cooking and functional constituent
		6 Food service
		7 Food culture
		8 Texture
		9 Mastication and swallowing
		B [Diet and health]
		10 Health and dietary life
		11 Diet and nutrition
		12 Dietary education
		13 Dietary habits
		14 Dietary behavior
		15 Dietary information
		16 Food with health claims
	17 Food and environment	
18 Diet evaluation		
19 Food management		

Discipline: Science education/Educational technology

Item Number	Research Field	Screening Sub-panel Number / Keyword
1801	Science education	1 Higher education(Mathematics, Physics, Chemistry, Biology, Information science, Astronomy, Earth and planetary science, Interdisciplinary science)
		2 Elementary and secondary education(Arithmetic·Mathematics, Natural science, Information science)
		3 Engineering education
		4 Science literacy
		5 Experiment/Observation
		6 Science education curriculum
		7 Environmental education
		8 Industrial technology education
		9 Science and sociocultural aspect
		10 Science teacher training
		11 Science communication
		12 Information literacy
1802	Educational technology	1 Curriculum/Pedagogy development
		2 Teaching-learning support systems
		3 Distributed collaborative learning system
		4 Human interface
		5 Instructional materials information system
		6 Utilization of media
		7 Distance education
		8 E-learning
		9 Information-related education
		10 Media education
		11 Learning environment
		12 Teacher's education
		13 Classroom instruction

Discipline: Sociology/History of science and technology

Item Number	Research Field	Screening Sub-panel Number / Keyword
1901	Sociology/History of science and technology	1 Sociology of science
		2 History of science
		3 History of technology
		4 Medical history
		5 Industrial archaeology
		6 Philosophy of science/Theory of science
		7 Science, technology and society

Discipline: Cultural assets study and museology

Item Number	Research Field	Screening Sub-panel Number / Keyword
2001	Cultural assets study and museology	A
		1 Dating methods
		2 Material analysis
		3 Production techniques
		4 Conservation science
		5 Archaeological prospection
		6 Plant and animal residues/Human remains
		7 Cultural property/Cultural heritage
		8 Cultural resources
		9 Cultural property policy
		10 Museum Informatics
		11 Museum Education, Museum Pedagogy
		12 Museum Information Systems, Museum Informatics
		B
		13 Museum Business Management
		14 Public Finance and Administration of Museums
15 Museum Material Resources		
16 History of Museology		

Discipline: Geography

Item Number	Research Field	Screening Sub-panel Number / Keyword
2101	Geography	1 Geography in general
		2 Land use/Landscape
		3 Environmental system
		4 Regional planning
		5 Cartography/Regional geography/Geography education
		6 Geomorphology
		7 Climatology
		8 Hydrology
		9 Geographic information system
		10 Remote sensing
		11 Vegetation/Soil
		12 Tourism

Discipline: Social/Safety system science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2201	Social systems engineering/Safety system	A [Social systems engineering]
		1 Social engineering
		2 Social system
		3 Policy science
		4 Development planning
		5 Management engineering
		6 Management system
		7 Operations research
		8 Quality control
		9 Industrial engineering
		10 Modeling
		11 Logistics
		12 Marketing
		13 Finance
		14 Project management
		15 Environmental management
		B [Safety system]
		16 Safety engineering
		17 Safety concerning products, facilities, systems
		18 Safety risk management
		19 Crisis management
		20 Fire and explosion prevention and protection
		21 Safety information
		22 Social technology for security (evacuation, mass guidance, information distribution, hazard map)
		23 Risk-based engineering
		24 Engineering diagnosis, regeneration, maintenance management
25 Reliability of machinery and human		
26 Occupational safety and health		

(Discipline: Social/Safety system science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2202	Natural disaster / Disaster prevention science	A [Earthquake and volcano disaster mitigation]
		1 Seismic motion
		2 Liquefaction
		3 Active fault
		4 Tsunami
		5 Volcanic eruption
		6 Volcanic ejecta/Debris flow
		7 Seismic hazard
		8 Volcanic hazard
		9 Damage prediction/Analysis/Mitigation measures
		10 Disaster mitigation and buildings
		B [Natural disasters]
		11 Meteorological disasters
		12 Hydrological disasters
		13 Geo-hazard
		14 Landslide
		15 Drought
		16 Snow and ice disasters
		17 Natural disaster prediction/Analysis/Measures
		18 Lifeline disaster prevention
		19 Local disaster preparedness plan and policy
20 Rehabilitation and reconstruction engineering		
21 Disaster risk assessment		

(Discipline: Biomedical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2304	Rehabilitation science / Welfare engineering	A [Rehabilitation science]
		1 Rehabilitation medicine
		2 Disability science
		3 Physical therapy
		1 4 Occupational therapy science
		5 Speech language and hearing therapy
		6 Social welfare and health science
		7 Artificial sensory organs
		2 8 Gerontology
		9 Clinical psychotherapy
		B [Welfare engineering]
		10 Engineering for health and welfare
		11 Technology for activities of daily living
		12 Preventive care/Assistive technology
		13 Normalization
		14 Barrier-free system
		15 Universal design
		16 Robotics for welfare and nursing care
		17 Technology for substituting biological function
		18 Technical aid
19 Human interface		
20 Nursing engineering		

Discipline: Biomedical engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
2301	Biomedical engineering / Biomaterial science and engineering	A [Biomedical engineering]
		1 Medical imaging, Bioimaging
		2 Biological modeling, physiome
		3 Biological simulation
		4 Bioinformation and instrumentation
		5 Artificial Organs
		6 Engineering for regenerative medicine
		7 Biological properties
		8 Biomedical control and therapy
		9 Biomechanics
		10 Cell biomechanics
		11 Nano-Bio Systems
		12 Biomedical Ultrasound
		13 Physiologically active substances application
		14 Bio-inspired system
		B [Biomaterial science and engineering]
		15 Biomaterials
		16 Biofunctional materials
		17 Cell and Tissue engineering Materials
		18 Biocompatible materials/Biosuitable materials
		19 Nano-biomaterials
		20 Materials for regenerative medicine and engineering
		21 Drug delivery system
22 Stimuli-responsive materials		
23 Materials for genetic and nucleic acid engineering		
2302	Medical systems	1 Medical Ultrasound System
		2 Medical imaging system
		3 Laboratory examination system
		4 Minimally invasive treatment system
		5 Remote diagnosis and treatment system
		6 Organ preservation and treatment system
		7 Medical information system
		8 Computational surgery
		9 Medical robotics
2303	Medical engineering assessment	1 Regularity Science
		2 Safety validation
		3 Clinical studies
		4 Biomedical engineering ethics
		5 Medical devices

Discipline: Health/Sports science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2401	Developmental mechanisms and the body works	A [Developmental mechanisms and the body works]
		1 Educational physiology
		2 Physical systems science
		3 Biological information analysis
		4 Higher brain function science
		5 Physical growth developmental science
		6 Sensory and motor development studies
		B [Mental and physical education and culture]
		7 Aesthetic education
		8 Physical environment theory
		9 Kinetic theory of leadership
		10 Pedagogy of physical education
		11 Fitness
		12 Cultural theories of physical movement
		13 Philosophy of the body
		14 Life and death education
		15 Psychology of physical education
		16 Affective science
		17 Outdoor education
		18 Dance education
		19 Gender education
		20 Adult life stage elderly gymnastics
21 Martial arts theory		
22 Motion adaptation life science		
2402	Sports science	A [Sports science]
		1 Sports philosophy
		2 Sports history
		3 Sports psychology
		1 4 Sports science management
		5 Sports pedagogy
		6 Training science
		7 Sports biomechanics
		8 Coaching
		9 Sports talent
		2 10 Sports for the disabled
		11 Sports sociology
		12 Sports environment
		13 Cultural anthropology of sport
		B [Medical and sport sciences]
		14 Sports physiology
		15 Sports biochemistry
		16 Sports nutrition
		17 Energy metabolism
		18 Training medical science
19 Sports disorders		
20 Doping		

(Discipline: Health/Sports science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2403	Applied health science	A [Health education/Health promotion activities]
		1 Health education
		2 Health promotion
		3 Safety propulsion/Safety education
		4 Pedagogy of health education
		5 Stress management
		6 Smoking/Drug abuse prevention education
		7 School health
		8 AIDS and sex education
		9 Health management
		10 Health information
		11 Nutritional guidance
		12 Physical and mental health
		13 Leisure/Recreation
		B [Applied medical health]
		14 Lifestyle diseases
		15 Exercise prescription and exercise therapy
		16 Aging
17 Sports medicine		
18 Sports immunology		

Discipline: Childhood science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2451	Childhood science (childhood environment science)	1 Health/Growth
		2 Development/Child care
		3 Exercise/Play
		4 Human rights/Right
		5 Misconduct/Deviation
		6 Social environment
		7 Cultural environment
		8 Physical environment
		9 Educational environment

Discipline: Biomolecular science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2501	Biomolecular chemistry	1 Natural product chemistry
		2 Secondary metabolite
		3 Searching bioactive molecules
		4 Chemical modification of biomolecules
		5 Biological function related substance
		6 Molecular mechanism of activity expression
		7 Biosynthesis
		8 Design and synthesis of bioactive molecule
		9 Combinatorial chemistry
		10 Chemical ecology
		11 Metabolome
2502	Chemical biology	1 In vivo functional expression
		2 Searching medicines
		3 Searching diagnosis chemicals
		4 Searching agricultural chemicals
		5 Chemical library
		6 Structure-activity relationship
		7 Chemical probes
		8 Molecular imaging
		9 Biomolecule measurements
		10 Intracellular chemical reactions
		11 Molecular targeting drugs
		12 Proteomics
		13 Directed evolution

Discipline: Brain sciences

Item Number	Research Field	Screening Sub-panel Number / Keyword
2601	Basic / Social brain science	1 Genome brain science
		2 Epigenetics
		3 Brain molecule profiling
		4 Nano brain science
		5 Chemical biology
		6 Medicinal brain science
		7 Brain function probe
		8 Brain imaging
		A 9 Luminary brain science
		10 Neuron glial cross-interaction
		11 Brain function model animals
		12 Brain function behavioral analysis
		13 Brain and rhythm
		14 Sleep
		15 Neuropsychology/Linguistic science
		16 Neurological science
		17 Science of Dementia
		18 Communication
		19 Human interaction
		20 Social behavior
		21 Development and education
		B 22 Sensibility, affectivity and emotion
		23 Values, reward and punishment
		24 Motivation
		25 Neuroeconomics and neuromarketing
		26 Political brain science
2602	Brain biometrics	1 Brain morphology measurement
		2 Functional /Non-invasive biometry (measurement)
		3 Real time brain blood flow measurement
		4 Brain recordings
		5 Brain information reading (Decoding)
		6 Sensory information
		7 Kinetic (motor) information
		8 Cognitive information
		9 Higher brain function measurement
		10 Brain information processing
		11 Brain function operation
		12 Brain machine interface

Category: Humanities and Social Sciences

Area: Humanities/Social sciences

Discipline: Area studies

Item Number	Research Field	Screening Sub-panel Number / Keyword
2701	Area studies	1 Europe
		2 Russia/Slavic area
		3 North America
		4 Central and South America
		5 East Asia
		6 Southeast Asia
		7 South Asia
		8 West Asia/Central Asia
		9 Africa
		10 Oceania
		11 Global studies
		12 Cross-regional comparative studies
		13 Aid/Regional cooperation

Discipline: Gender

Item Number	Research Field	Screening Sub-panel Number / Keyword
2801	Gender	1 Gender differences/Gender roles
		2 Sexuality
		3 Social thought/Social movements/History
		4 Law/Politics
		5 Economy/Labor
		6 Social policy/Social welfare
		7 Body/Expression/Media
		8 Science and technology/Medicine/Life Science
		9 Education/Human development
		10 Development
		11 Violence/Prostitution
		12 Cross-cultural comparison
		13 Women's studies/Men's studies/Queer studies
		14 Career
		15 Gender equality
		16 Comparative analysis among nations

Discipline: Tourism Studies

Item Number	Research Field	Screening Sub-panel Number / Keyword
2851	Tourism Studies	1 Tourism Theory
		2 Tourism Resources
		3 Tourism Policy
		4 Tourist Industry
		5 Regional Development
		6 Town Planning
		7 Tourists
		8 Resorts
		9 Landscape
		10 World Heritage Sites
		11 Festivals and Events

Area: Humanities

Discipline: Philosophy

Item Number	Research Field	Screening Sub-panel Number / Keyword
2901	Philosophy/Ethics	1 Principles of philosophy/Specific theories of philosophy
		2 Principles of ethics/Specific theories of ethics
		3 Western philosophy
		4 Western ethics
		5 Japanese philosophy
		6 Japanese ethics
		7 Comparative philosophy
2902	Chinese philosophy/Indian philosophy/Buddhist studies	1 Chinese philosophy/Thought
		2 Chinese Buddhism
		3 Taoism
		4 Confucianism
		5 Indian philosophy/Thought
		6 Buddhist studies/History of Buddhism
2903	Religious studies	1 Religious studies in general
		2 History of religions
		3 Sociology of religion
		4 Philosophy of religion
		5 Comparative study of religion
2904	History of thought	1 History of Western thought
		2 History of Eastern and Japanese thought
		3 Comparative history of thought
		4 History of religious thought
		5 History of social thought
		6 History of political thought
		7 History of scientific thought
		8 History of art theory

Discipline: Art studies

Item Number	Research Field	Screening Sub-panel Number / Keyword
3001	Aesthetics and studies on art	1 Aesthetics
		2 Philosophy and theory of art
		3 Musicology and music history
		4 Miscellaneous art studies
3002	Fine art history	1 Japanese and Eastern art history
		2 Western art history
		3 Comparative art history
		4 Iconology and religious art history
		5 Architecture history
		6 History of design, product design and clothing
3003	Art at large	1 Cultural representation studies
		2 Pop culture
		3 Film studies
		4 Performing arts
		5 Policy, arts management and creative industries
		6 Art practice, and musical and other performance
		7 Media arts

Discipline: Literature

Item Number	Research Field	Screening Sub-panel Number / Keyword
3101	Japanese literature	1 Japanese literature in general
		2 Ancient literature (Nara and Heian periods)
		3 Medieval literature (Kamakura and Muromachi periods)
		4 Kanbungaku (Chinese literature in Japan)
		5 Bibliography and philology
		6 Premodern literature (Edo period)
		7 Modern and contemporary literature (after Meiji Restoration)
		8 Literary theory, criticism, and comparative literature

(Discipline: Literature)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3102	Literature in English	1 English literature
		2 Comparative literature
		3 American literature
		4 Other literatures in English
		5 Literary theory, criticism, bibliography and philology
3103	European literature	1 French and Francophone literature
		2 Western classics
		3 Literary theory, criticism, bibliography and philology
		4 Comparative literature
		5 German literature
		2 6 Russian and East European literature
		7 Other European literature
3104	Chinese literature	1 Chinese literature
		2 Bibliography and philology
		3 Literary theory and criticism
		4 Comparative literature
3105	Literature in general	1 Literary theory and criticism
		2 Comparative literature
		3 Literature in other languages and areas

Discipline: Linguistics

Item Number	Research Field	Screening Sub-panel Number / Keyword
3201	Linguistics	1 1 Phonetics
		2 Phonology
		3 Morphology
		4 Syntax
		1 5 Semantics
		6 Pragmatics
		7 Discourse analysis
		8 Scripts and orthography
		9 Lexicography
		10 Sociolinguistics
		11 Psycholinguistics
		12 Biolinguistics
		13 Historical linguistics
		14 French linguistics
		2 15 German linguistics
		16 Chinese linguistics
		17 Other languages
		18 Endangered and minority languages
		19 Neurolinguistics
		20 Corpus linguistics
3202	Japanese linguistics	1 Phonetics/Phonology
		2 Grammar
		3 Morphology, Semantics
		4 Writing systems
		5 Stylistics
		6 Dialect
		7 Language in daily life
		8 History of the Japanese language
		9 History of Japanese linguistics
3203	English linguistics	1 Phonetics/Phonology
		2 Grammar
		3 Morphology, Semantics
		4 Stylistics
		5 History of the English language
		6 History of English linguistics
		7 Diversity of the English language

(Discipline: Linguistics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3204	Japanese language education	1 Systems of Japanese language education/ Language policy
		2 Theories on qualified teachers/Classroom research
		3 Teaching methods/Curriculum planning
		4 Theory of second language acquisition
		5 Educational technology/Teaching materials/Educational media in general
		6 Mother tongue retention/Bilingual education
		7 Cross-cultural understanding and intercultural communication
		8 Japanese affairs
		9 History of Japanese language education
		10 Educational testing and evaluation
3205	Foreign language education	1 1 Teaching methods/Curriculum planning
		2 Educational technology/Teaching materials/Educational media in general
		3 e-Learning/Computer-assisted language learning
		4 Theory of second language acquisition
		5 Intercultural communication, translation and interpretation
		6 Early foreign language education
		7 Foreign language education and language policies
		4 8 Theory and history of foreign language education
		9 Educational testing and evaluation
		10 Training foreign language teachers

Discipline: History

Item Number	Research Field	Screening Sub-panel Number / Keyword
3301	Historical studies in general	1 World history
		2 History of cultural and diplomatic exchange
		3 Comparative history
		4 Comparative study of civilizations
		5 Globalization
		6 Environmental history
		7 History of islands and oceans
		8 Research in historical materials
3302	Japanese history	1 Ancient history (Nara and Heian periods)
		2 Medieval history (Kamakura and Muromachi periods)
		3 Cultural history
		1 4 Religious history
		5 Rural history
		6 Japanese history in general
		7 History of cultural and diplomatic exchange
		8 Research in historical materials
		9 Early modern history (Edo period)
		10 Modern and contemporary history (after the Meiji Restoration)
		2 11 Local history
		12 Environmental history
		13 History of disasters
		14 Urban history

(Discipline: History)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3303	History of Asia and Africa	1 Chinese history (Ancient, medieval, and early modern periods)
		2 Chinese history (Modern and contemporary periods)
		3 East Asian history
		4 Southeast Asian history
		5 Oceanian history
		6 South Asian history
		7 West Asian/Islamic history
		8 Central Eurasian history
		9 African history
		10 Comparative history/History of cultural and diplomatic exchange
		11 Research in historical materials
3304	History of Europe and America	1 Ancient European history
		2 Medieval European history
		3 Modern and contemporary West European history
		4 Modern and contemporary East European history
		5 Modern and contemporary South European history
		6 Modern and contemporary North European history
		7 North and South American history
		8 Comparative history/History of cultural and diplomatic exchange
		9 Research in historical materials
3305	Archaeology	1 Archaeology in general
		2 Prehistoric studies
		3 Historical archaeology
		4 Japanese archaeology
		5 Asian archaeology
		6 Study of ancient civilizations
		7 Study of material culture
		8 Experimental archaeology
		9 Research in buried cultural assets
		10 Archaeological informatics

Discipline: Cultural anthropology

Item Number	Research Field	Screening Sub-panel Number / Keyword
3501	Cultural anthropology	1 Cultural anthropology
		2 Folklore
		3 Ethnography
		4 Social anthropology
		5 Comparative folklore
		6 Material culture
		7 Prehistoric period/Historic period
		8 Arts/Performing arts
		9 Religion/Rituals
		10 Development/Aid
		11 Health care
		12 Migration/Border crossing
		13 Minority
		14 Ecology/Natural environment
		15 Media
		16 Body/ Sport

Discipline: Human geography

Item Number	Research Field	Screening Sub-panel Number / Keyword
3401	Human geography	1 History of geography/Methodology
		2 Economic geography/Transportation geography
		3 Political geography/Social geography
		4 Cultural geography
		5 Urban geography
		6 Rural geography
		7 Historical geography
		8 Regional environment/Natural hazards
		9 Geography education
		10 Regional planning/Regional policy
		11 Regional geography
		12 Geographic information system
		13 History of cartography

Area: Social sciences

Discipline: law

Item Number	Research Field	Screening Sub-panel Number / Keyword
3601	Fundamental law	1 Legal philosophy/Legal theory
		2 Roman law
		3 Legal history
		4 Sociology of law
		5 Comparative law
		6 Foreign law
		7 Law and policy, Legislative studies
		8 Law and economics
3602	Public law	1 Constitutional law
		2 Administrative law
		3 Tax law
		4 Constitutional theory, History of constitution
		5 Constitutional litigation
		6 Comparative constitutional law, EU law
		7 Administrative organization law
		8 Administrative procedure
		9 Administrative remedies
		10 International tax law
3603	International law	1 Public international law
		2 Private international law
		3 International human rights, Nationality law
		4 Law of international organizations
		5 International economic law
		6 International civil procedure
		7 International trade law
3604	Social law	1 Labor law
		2 Economic law
		3 Social security law
		4 Education law
3605	Criminal law	1 Criminal law
		2 Criminal procedure
		3 Criminology
		4 Criminal justice policy
		5 Juvenile law
		6 Law and psychology
3606	Civil law	1 Civil law
		2 Commercial law
		3 Civil procedure
		4 Company law, Business corporate law
		5 Financial law
		6 Securities law
		7 Insurance law
		8 Insolvency law
		9 Alternative dispute resolution
		10 Civil execution law
3607	New fields of law	1 Environmental law
		2 Medical law
		3 Information law, Media law
		4 Intellectual property law
		5 Law and gender
		6 Law and education, Legal profession, Legal teaching
		7 Legal person, Trusts
		8 Consumer law
		9 Traffic law
		10 Land law, Housing law
		11 Judicial system

Discipline: Politics

Item Number	Research Field	Screening Sub-panel Number / Keyword
3701	Politics	1 Political theory
		2 Political methodology
		3 History of Western political thought
		4 History of Japanese and East Asian political thought
		5 Political history
		6 Japanese political history
		7 Japanese politics
		8 Political process
		9 Electoral studies
		10 New institutionalism
		11 Political economy
		12 Public administration
		13 Local government
		14 Comparative politics
		15 Public policy
3702	International relations	1 Theory of international relations
		2 Diplomatic history/International history
		3 Foreign policy
		4 International security
		5 Non-traditional security/ Human security
		6 International political economy
		7 International regime
		8 International integration
		9 International cooperation
		10 International communication
		11 Transnational relations
		12 Global issues
		13 International relations of East Asia
		14 International development cooperation

Discipline: Economics

Item Number	Research Field	Screening Sub-panel Number / Keyword
3801	Economic theory	1 Microeconomics
		2 Macroeconomics
		3 Economic theory
		4 Game theory
		5 Behavioral Economics
		6 Experimental Economics
		7 Evolutionary Economics
		8 Economic Institutions and Systems
3802	Economic doctrine/ Economic thought	1 Economic doctrine
		2 Economic thought
		3 Social thought
		4 Economic Philosophy
3803	Economic statistics	1 Statistical system
		2 Statistical research
		3 Population statistics
		4 Income/Wealth distribution
		5 National accounts
		6 Econometrics
		7 Financial Econometrics
3804	Economic policy	1 International economics
		2 Industrial organization
		3 Economic development
		4 Economic policy
		5 Urban economics
		6 Transportation economics
		7 Regional economics
		8 Environmental economics
		9 Resource economics
		10 Japanese economy
		11 Economic affairs

(Discipline: Economics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3805	Public finance/ Public economy	1 Public finance
		2 Local government finance
		3 Public economics
		4 Public policy
		5 Health economics
		6 Labor economics
		7 Social security
		8 Education economics
		9 Law and economics
		10 Political economics
3806	Money/ Finance	1 Monetary economics
		2 Finance
		3 International finance
		4 Corporate finance
		5 Insurance
		6 Financial engineering
3807	Economic history	1 Economic history
		2 Business history
		3 Industrial history

Discipline: Management

Item Number	Research Field	Screening Sub-panel Number / Keyword
3901	Management	1 Organizational management
		2 Managerial finance
		3 Management information
		4 Business administration
		5 Corporate social responsibility
		6 Management theory
		7 Corporate strategy
		8 International management
		9 Management of technology
		10 Business ventures
		11 Human resource management
3902	Commerce	1 Marketing
		2 Consumer behavior
		3 Advertising
		4 Distribution and logistics
		5 Marketing research
		6 Commerce
		7 Insurance
3903	Accounting	1 Financial accounting
		2 Managerial accounting
		3 Auditing
		4 Bookkeeping
		5 International accounting
		6 Tax accounting
		7 Governmental accounting
		8 Environmental accounting

Discipline: Sociology

Item Number	Research Field	Screening Sub-panel Number / Keyword
4001	Sociology	1 Social philosophy/Social thought
		2 History of sociology
		3 Sociological Theory / Sociological Methodology
		4 Social System
		5 Social research
		6 Mathematical sociology
		7 Social interaction/Social relations
		8 Social group/Social organization
		9 Institutions/Structure/Social change
		10 Knowledge/Science/Technology
		11 Politics/Power/State
		12 Class/Social status group /Social mobility
		13 Family/Kinship/Population
		14 Community/Village/City
		15 Industry/Labor
		16 Sociology of welfare
		17 Culture/Religion/Social consciousness
		18 Communication/Information/Media
		19 Gender
		20 Education/School
		21 Medical sociology /Disability studies
		22 Social problems/Social movements
		23 Discrimination/Social exclusion
		24 Environment/Pollution
		25 International community/Ethnicity
		26 Body/Sports
		27 Self/Identity
4002	Social welfare and social work studies	1 Principles of social welfare/philosophy of social welfare
		2 Social welfare history
		3 Social security / Social welfare policy
		4 Welfare state/ Welfare society
		5 Social work
		6 Poverty/ Public assistance
		7 Child welfare
		8 Women's welfare/ Feminist social work
		9 Social policy and social work with people with disabilities
		10 Social policy and social work with the elderly
		11 Social work with families
		12 Community work/ community services/community development
		13 Social work in mental health /social work in health care/ care work
		14 Forensic social work/ social work in juvenile delinquency and criminal justice
		15 Management in social work / Advocacy/evaluation
		16 International social work / NGOs in social welfare
		17 Volunteerism / NPOs in social welfare
		18 Social work education/ Field education

Discipline: Psychology

Item Number	Research Field	Screening Sub-panel Number / Keyword
4101	Social psychology	1 Self-processes
		2 Social cognition/Emotion
		3 Attitude/Belief
		4 Social interaction/Interpersonal relations
		5 Interpersonal communication
		6 Group/Leadership
		7 Collective behavior/Social phenomena
		8 Industry/Organization/Personnel
		9 Culture
		10 Social issues
		11 Environment/Environmental problems
		12 Media/Electronic network
		13 Consumer behavior
4102	Educational psychology	1 Development
		2 Parent-child relationship
		3 Developmental disorder
		4 Personality
		5 Teaching Method/Learning
		6 Educational assessment/evaluation
		7 Educational counseling
		8 Interpersonal relations/ behavior
		9 Self-process
		10 School,Class,Teacher
4103	Clinical psychology	1 Psychological disorder
		2 Crime/Delinquency
		3 Psychological assessment
		4 Psychotherapy
		5 Psychological intervention
		6 Nonverbal communication
		7 Counseling
		8 Psychological interviewing process
		9 Case study
		10 Self-help group
		11 Therapist's theory
		12 Community support
		13 Health psychology/Health development
		14 Rehabilitation psychology
4104	Experimental psychology	1 Psycho-physiology
		2 Sensation/Perception/Kansei
		3 Consciousness/Cognition/Attention
		4 Memory
		5 Affection/Emotion/Motivation
		6 Thinking/Reasoning/Language
		7 Learning/Behavior analysis
		8 Evolution/Development/Comparative cognition
		9 Principle/History/Methodology

Discipline: Education

Item Number	Research Field	Screening Sub-panel Number / Keyword
4201	Education	1 Philosophy of education
		2 Educational thought
		3 History of education
		4 Curriculum theory
		5 Instructional theory
		6 Academic achievement theory
		7 Educational methods
		8 Educational evaluation
		9 Teacher education
		10 Administration and finance of education
		11 School management
		12 School education
		13 Early childhood education/Child-care
		14 Lifelong learning
		15 Adult and community education
		16 Education at home
		17 Education policy

(Discipline: Education)

Item Number	Research Field	Screening Sub-panel Number / Keyword
4202	Sociology of education	1 Sociology of education
		2 Economics of education
		3 Anthropology of education
		4 Education policy
		5 Comparative education
		6 Human resource development/Development education
		7 School system/School culture
		8 Teacher/Student culture
		9 Youth problems
		10 Academic achievement problem
		11 Multicultural education
		12 Gender and education
		13 Education survey method
		14 Educational information system
4203	Education on school subjects and activities	1 Education of individual subjects (Japanese, mathematics, science, social studies, geography/History, civics, life environmental studies, music, art, home economics, technology, English, information)
		2 Education of vocational/Professional subject (industry, bussiness, agriculture, fishery, nursing, welfare)
		3 Curriculum composition/development
		4 Materials development
		5 Education excluding subject (global learning, moral, special activities)
		6 Guidance
		7 Career education
		8 Teacher training
4204	Special needs education	1 Education philosophy, Thought and History
		2 Education system, Policy, and Administration
		3 Psychological clinical study and Experiment study
		4 Assessment
		5 Instruction, Support, and Evaluation
		6 Support system and Special needs education coordinator
		7 Consultation and Counseling
		8 Family and advocacy
		9 Cohesive society and School inclusion
		10 Early detection and Early support
		11 Regular classroom and Resource room
		12 Special school for Children with disabilities
		13 Higher education and Career education
		14 Developmental disabilities and Emotional disturbance
		15 Intellectual disabilities
		16 Visual impairments, Deaf and Hard of hearing, and Speech and Language disorders
		17 Physical disorders and Health impairments
		18 Learning difficulties and School maladjustment
		19 Gifted and Talented

Category: Science and Engineering

Area: Interdisciplinary science and engineering

Discipline: Nano/Micro science

Item Number	Research Field	Screening Sub-panel Number / Keyword
4301	Nanostructural chemistry	1 Nanostructural chemistry
		2 Creation of nanostructures
		3 Clusters/Nanoparticles
		4 Fullerenes/Nanotubes/Graphene
		5 Mesoscopic Chemistry
		6 Hierarchical structures/Superstructures
		7 Nanosurfaces/Nanointerfaces
		8 Self-assembly
4302	Nanostructural physics	1 Nanotubes/Graphene
		2 Nanostructure properties
		3 Nanoscale control physics
		4 Nano/Micro physics
		5 Nanoprobes
		6 Quantum information
		7 Quantum effects
		8 Quantum dots
		9 Quantum devices
		10 Electron devices
		11 Spin devices
		12 Nanotribology
4303	Nanomaterials chemistry	1 Creation of nanomaterials
		2 Analysis and characterization of nanomaterials
		3 Nanosurfaces/Nanointerfaces
		4 Functional nanomaterials
		5 Formation/Control of nanostructures
		6 Molecular components
		7 Nanoparticles
		8 Fullerenes/Nanotubes/Graphene
		9 Carbon nanomaterials
		10 Single-molecule chemistry
		11 Nano-optical devices
		12 Molecular devices
4304	Nanomaterials engineering	1 Nano crystalline materials/Composites
		2 Nano particles/Wires/Sheets
		3 Nano dots/Layers
		4 Nano defect control
		5 Hetero/Homo structures
		6 Nano materials /Fabrication process
		7 Nano shaping/Forming process
		8 Nano carbon applications
		9 Nano and micro structural analysis /Evaluation/Testing
4305	Nanobioscience	1 DNA devices
		2 Nanosynthesis
		3 Molecular manipulation
		4 Biochips
		5 Single-molecule biochemistry and physiology
		6 Single-molecule bioinformation science
		7 Single-molecule science
		8 Single-molecule imaging/Nanometrology
		9 Genomic engineering
4306	Nano/Microsystems	1 MEMS • NEMS
		2 Nano/Microfabrication
		3 Nano/Micro-optical devices
		4 Nano/Microchemical systems
		5 Nano/Microbiosystems
		6 Nano/Micromechanics
		7 Nano/Microsensors

Discipline: Applied physics

Item Number	Research Field	Screening Sub-panel Number / Keyword
4401	Applied materials	1 Magnetic material
		2 Superconductor
		3 Dielectric
		4 Optical properties
		5 Micro crystal
		6 Organic molecule
		7 Liquid crystal
		8 New functional materials
		9 Spintronics
		10 Organic/Molecular electronics
		11 Bioelectronics
4402	Crystal engineering	1 Metal
		2 Semiconductor
		3 Amorphous
		4 Crystallite
		5 Ceramics
		6 Crystal growth
		7 Epitaxial growth
		8 Crystal characterization
		9 Heterostructure
		10 Electronic/optical functionality
4403	Thin film/ Surface and interfacial physical properties	1 Ferroelectric thin film
		2 Carbon-related thin film
		3 Oxide electronics
		4 New functional thin film materials
		5 Surface
		6 Interface
		7 Vacuum
		8 Beam application
		9 Scanning probe microscopy
		10 Electron microscopy
4404	Optical engineering, Photon science	1 Optical elements/Instrumentation/Materials
		2 Quantum information processing
		3 Vision
		4 Quantum electronics
		5 Laser
		6 Nonlinear optics
		7 Quantum optics
		8 Photonic crystals
		9 Opto-electronics
		10 Micro-and nano-optics
		11 Optical sensing
		12 Optical recording
		13 Optical controlling
		14 Photo-processing
4405	Plasma electronics	1 Plasma
		2 Plasma processing
		3 Plasma application
		4 Reactive plasma
		5 Plasma chemistry
		6 Plasma treatment
		7 Plasma diagnostics

Area: Mathematical and physical sciences

(Discipline: Applied physics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
4406	General applied physics	1 Mechanics
		2 Thermal engineering
		3 Sounds
		4 Vibration
		5 Electromagnetism
		6 Physical measurements and control
		7 Standards
		8 Sensors
		9 Energy conversion
		10 Radiation
		11 Accelerators

Discipline: Quantum beam science

Item Number	Research Field	Screening Sub-panel Number / Keyword
4501	Quantum beam science	1 Technology of accelerator
		2 Diagnostics for quantum beams
		3 Data processing and analysis
		4 Detectors
		5 Industrial application
		6 Medical application
		7 Compact quantum beam generator
		8 Lasers
		9 X-ray
		10 γ -ray
		11 Synchrotron radiation
		12 Neutron
		13 Muon
		14 Electron, Positron
		15 Neutrino
		16 Ion beam
		17 Proton beam
		18 Other quantum beam

Discipline: Computational science

Item Number	Research Field	Screening Sub-panel Number / Keyword
4601	Computational science	1 Mathematical engineering (mathematical analysis/planning/designing/optimization)
		2 Computational mechanics
		3 Numerical simulation
		4 Multi-scale modeling
		5 Large scale simulation
		6 Parallel Processing, 3D simulation
		7 Numerical simulation methods
		8 Advanced algorithms

Discipline: Mathematics

Item Number	Research Field	Screening Sub-panel Number / Keyword
4701	Algebra	1 Number theory
		2 Arithmetic geometry
		3 Group theory (including representation theory of groups)
		4 Algebraic combinatorics
		5 Algebraic geometry
		6 Ring theory (including Lie algebra theory, representation theory of Lie algebras)
		7 Other algebra (including algebraic analysis, computational algebra, applications of algebra)
4702	Geometry	1 Riemannian geometry (including geometric analysis)
		2 Symplectic geometry (including contact geometry)
		3 Complex geometry
		4 Other differential geometry (including geometric structures, discrete geometry)
		5 Topology (algebraic topology, general topology)
		6 Differential topology (foliations, singularities, topological transformation groups)
		7 Low-dimensional topology (knot theory, 3-dimensional manifolds, 4-dimensional manifolds)
4703	Basic analysis	1 Functional analysis (including operator theory/representation theory)
		2 Operator algebras
		3 Dynamical systems/Integrable systems
		4 Algebraic analysis
		5 Real analysis
		6 Complex analysis
		7 Probability theory
		8 Other basic analysis (including function spaces/foundations of applied analysis)
4704	Mathematical analysis	1 Functional equations
		2 Applied analysis
		3 Nonlinear analysis (including variational analysis/nonlinear phenomena)
4705	Foundations of mathematics/ Applied mathematics	1 Mathematical logic and foundations, Information mathematics
		2 Discrete mathematics
		3 Numerical analysis/ Mathematical models (including prediction Theory, optimization, data analysis)
		4 Statistical mathematics (including game theory, design of experiments, convex programming problems, decision theory, estimation theory, testing theory, estimation of stochastic processes)
		5 Other applied mathematics

Discipline: Astronomy

Item Number	Research Field	Screening Sub-panel Number / Keyword
4801	Astronomy	1 Optical/Infrared astronomy
		2 Radio astronomy
		3 Solar physics
		4 Astrometry
		5 Theoretical astronomy
		6 X-ray/ γ -ray astronomy

Discipline: Physics

Item Number	Research Field	Screening Sub-panel Number / Keyword
4901	Particle/ Nuclear/ Cosmic ray/ Astro physics	1 Particle physics (theory)
		2 Nuclear physics (theory)
		3 Cosmic ray physics (theory)
		4 Astrophysics (theory)
		5 Cosmology/Gravitation (theory)
		6 Particle physics (experiment)
		7 Nuclear physics (experiment)
		8 Cosmic ray physics (experiment)
		9 Astrophysics (experiment)
		10 Cosmology/Gravitation (experiment)
		11 Accelerator technology
		12 Particle detectors
4902	Condensed matter physics I	1 Semiconductors
		2 Mesoscopic system/Localization
		3 Optical properties
		4 Surface/Interface
		5 Crystal growth
		6 Dielectrics
		7 Lattice defects
		8 X-ray/Particle beam
		9 Phonon properties
		10 Spin properties(semiconductor)
4903	Condensed matter physics II	1 Magnetism
		2 Magnetic resonance
		3 Strongly-correlated system
		4 High temperature superconductivity
		5 Metal
		6 Ultralow temperature/Condensed quantum system
		7 Superconductivity/Density wave system
		8 Molecular solid/Organic conductor
4904	Mathematical physics/ Fundamental condensed matter physics	1 Statistical physics
		2 Fundamental condensed matter theory
		3 Mathematical physics
		4 Integrable system
		5 Non-equilibrium/Nonlinear physics
		6 Applied mathematics
		7 Dynamics
		8 Fluid physics
		9 Disordered system
		10 Computational physics
4905	Atomic/ Molecular/ Quantum electronics	1 Atom/Molecule
		2 Quantum electronics
		3 Quantum information
		4 Radiation
		5 Beam physics
4906	Biological physics/ Chemical physics/Soft matter physics	1 Physics of living phenomena
		2 Physics of biomolecules
		3 Mathematical biology
		4 Glass•Liquid•Solution
		5 Optical response•Photosynthesis•Chemical reaction
		6 Polymer•Liquid crystal•Gel
		7 Emulsion•Membrane•Colloid
		8 Interface•Wetting•Adhesion•Fracture
		9 Biophysics(general)
		10 Chemical physics(general)
		11 Soft matter physics(general)

Discipline: Earth and planetary science

Item Number	Research Field	Screening Sub-panel Number / Keyword
5001	Solid earth and planetary physics	1 Earthquake phenomena
		2 Volcanic phenomena
		3 Prediction of earthquakes and volcanic eruptions
		4 Earthquake and volcanic disasters
		5 Crustal movement/Sea floor crustal movement
		6 Geomagnetism
		7 Gravity
		8 Tectonics
		9 Internal structure
		10 Earth interior dynamics/Mineral physics
		11 Solid planets/Satellite/Asteroid
		12 Planet formation and evolution
		13 Exploration of solid planets
		14 Observation methods
5002	Meteorology/ Physical oceanography/ Hydrology	1 Meteorology
		2 Climatology
		3 Planetary atmospheres
		4 Air-sea interaction
		5 Geophysical fluid dynamics
		6 Physical oceanography
		7 Global environmental system
		8 Land-area water cycle/Material circulation
		9 Water budget
5003	Space and upper atmospheric physics	1 Terrestrial and planetary magnetospheres
		2 Geomagnetic variation
		3 Terrestrial and planetary ionospheres
		4 Terrestrial and planetary upper atmospheres
		5 Aurora/Magnetic storm
		6 Solar wind/Interplanetary space
		7 Solar-terrestrial system/Space weather
		8 Space plasma/Plasma wave
		9 Planetary plasma/Planetary atmosphere exploration
5004	Geology	1 Regional geology
		2 Marine geology
		3 Accretionary prism/Orogenic belt
		4 Structural geology/Tectonics
		5 Volcanoes/Active faults/Geologic hazards
		6 Environmental geology/Hydraulic geology
		7 Quaternary study
		8 Applied geology/Urban geology
		9 Sedimentology/Energy resource geology
		10 Earth history/Planetary geology
		11 Geoinformatics
		12 History of geoscience
5005	Stratigraphy/ Paleontology	1 Stratigraphic succession
		2 Fossil
		3 Phylogeny/Evolution/Diversity
		4 Function/Morphology
		5 Paleoecology
		6 Paleobiogeography
		7 Paleoenvironment
		8 Paleo-ocean
5006	Petrology/ Mineralogy/ Economic geology	1 Earth and planetary materials
		2 Earth and planetary evolution
		3 Crust/Mantle/Core
		4 Magma/Igneous rocks
		5 Metamorphic rocks
		6 Mineral physics
		7 Natural and artificial crystals
		8 Elemental fractionation
		9 Ore deposition
		10 Mineral resources
		11 Biologic and environmental minerals

(Discipline: Earth and planetary science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5007	Geochemistry/ Cosmochemistry	1 Earth and extraterrestrial materials
		2 Material recycling
		3 Distribution of elements and molecules
		4 Isotope/Radiometric dating
		5 Cosmochemistry
		6 Chemistry of the crust and mantle
		7 Organic geochemistry
		8 Biosphere geochemistry
		9 Atmospheric and hydrospheric geochemistry
		10 Environmental/geo-environmental chemistry
		11 Analytical methods

Discipline: Plasma science

Item Number	Research Field	Screening Sub-panel Number / Keyword
5101	Plasma science	1 Basic plasma physics and electric discharges
		2 Space and astrophysical plasmas
		3 Burning plasma
		4 High energy density physics
		5 Complex plasmas
		6 Reactive plasmas
		7 Plasma chemistry
		8 Plasma applications
		9 Plasma diagnostics
		10 Plasma control /Laser
		11 Plasma acceleration
		12 Plasma application to beam physics
		13 Plasma application to mm and THz waves

Area: Chemistry

Discipline: Basic chemistry

Item Number	Research Field	Screening Sub-panel Number / Keyword
5201	Physical chemistry	1 Structural chemistry
		2 Electronic state
		3 Molecular dynamics
		4 Chemical reaction
		5 Reaction dynamics
		6 Molecular spectroscopy
		7 Surface/Interface
		8 Solution
		9 Cluster
		10 Theoretical chemistry
		11 Biophysical chemistry
5202	Organic chemistry	1 Structural organic chemistry
		2 Organic reaction chemistry
		3 Synthetic organic chemistry
		4 Organoelement chemistry
		5 Organic photochemistry
		6 Physical organic chemistry
		7 Theoretical organic chemistry
5203	Inorganic chemistry	1 Metal complex chemistry
		2 Organometallic chemistry
		3 Inorganic solid-state chemistry
		4 Bioinorganic chemistry
		5 Nuclear/Radiochemistry
		6 Supramolecular complexes
		7 Multinuclear/Cluster complexes
		8 Coordination polymers
		9 Solution chemistry
		10 Nanomaterials
		11 Crystal structure
		12 Catalysts
		13 Element resources

Discipline: Applied chemistry

Item Number	Research Field	Screening Sub-panel Number / Keyword
5301	Functional solid state chemistry	1 Optical properties
		2 Electronic properties
		3 Electron spin
		4 Integrated properties
		5 Molecular devices
		6 Supramolecules
		7 Liquid crystals
		8 Crystals
		9 Thin films
		10 Surface/Interface
		11 Colloids/Quantum dots
		12 Electrochemistry
5302	Synthetic chemistry	1 Selective synthesis
		2 Complex/Organometallic catalysis
		3 Fine chemicals
		4 Asymmetric synthesis
		5 Catalyst design/reaction
		6 Environmentally benign synthesis
		7 Reaction field
		8 Automatic synthesis
		9 Biomimetic synthesis
		10 Combinatorial synthesis
		11 Organocatalyst
12 Natural product synthesis		
13 Synthetic resources		

(Discipline: Applied chemistry)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5303	Polymer chemistry	1 Polymer synthesis
		2 Polymer reaction/degradation
		3 Asymmetric polymerization
		4 Self-assembled polymers
		5 Polymer structure
		6 Polymer properties
		7 Functional polymers
		8 Bio-related polymers
		9 Polymer complex
		10 Polymer thin film/surface
		11 Polymerization catalyst
		12 Polymer resources
5304	Analytical chemistry	1 Sampling/Pretreatment
		2 Solvent/solid-phase extraction
		3 Instrumental analysis
		4 Spectrometric analysis
		5 Laser spectroscopy
		6 Mass spectrometry
		7 X-ray/electron spectroscopy
		8 Surface/particulate analysis
		9 Electrochemical analysis
		10 Chemical/bio sensor
		11 Separation analysis
		12 Chromatography
		13 Electrophoresis
		14 Flow analysis (FIA)
		15 Microchannel analysis
		16 Analytical reagent
		17 Environmental analysis
		18 Organic/polymer analysis
		19 Bioanalysis
5305	Bio-related chemistry	1 Nucleic acid chemistry
		2 Proteins and enzymes
		3 Sugar chemistry
		4 Natural products chemistry
		5 Bio-inorganic chemistry
		6 Bio-related chemistry
		7 Molecular recognition
		8 Bio-functional chemistry
		9 Biotechnology
		10 Biocatalysts
		11 Biofunctional materials
		12 Bio-structural chemistry
5306	Green/ Environmental chemistry	1 Environmental analysis
		2 Sensor/monitoring
		3 Pollutant evaluation
		4 Pollution indicator
		5 Environment assessment
		6 Environmental information chemistry
		7 Pollutant
		8 Decontamination material
		9 Environmental road-reducing substance
		10 Biodegradable substance
		11 Environmental restoration material
		12 Green chemistry
		13 Sustainable chemistry
		14 Recycle
		15 Element recovery
		16 Safety chemistry
		17 Resource analysis

(Discipline: Applied chemistry)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5307	Energy-related chemistry	1 Energy conversion
		2 Low-carbon Chemistry
		3 High-functional catalysts
		4 Photocatalysts
		5 Molecular devices and materials
		6 Energy resources
		7 Energy conservation chemistry

Discipline: Materials chemistry

Item Number	Research Field	Screening Sub-panel Number / Keyword
5401	Organic and hybrid materials	1 Liquid crystals
		2 Crystals
		3 Organic semiconductor materials
		4 Organic optical materials
		5 Organic/inorganic hybrid materials
		6 Molecular device materials
		7 Other functional materials
5402	Polymer/ Textile materials	1 Properties of polymer materials
		2 Synthesis of polymer materials
		3 Textiles
		4 Rubbers
		5 Gel
		6 Functional polymer materials
		7 Biopolymers
		8 Polymer alloy
		9 Polymer composites
		10 Polymer/Textile processing
5403	Inorganic industrial materials	1 Crystals
		2 Glass
		3 Ceramics
		4 Metals
		5 Layered/Intercalation compounds
		6 Ion exchangers
		7 Ionic conductors
		8 Photocatalysts
		9 High-functional catalysts
		10 Electrochemical materials
		11 Nanoparticle/Quantum dots
		12 Porous materials
5404	Device related chemistry	1 Semiconductor devices
		2 Electrical, magnetical and optical devices
		3 Biofunctional devices
		4 Batteries
		5 Molecular sensors

Area: Engineering

Discipline: Mechanical engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
5501	Materials/ Mechanics of materials	1 Material design/Process/Mechanical properties/Evaluation
		2 Continuum mechanics
		3 Structural mechanics
		4 Damage mechanics
		5 Fracture
		6 Fatigue
		7 Environments
		8 Reliability
		9 Biomechanics
		10 Nano/Micro material mechanics
		11 Bio material mechanics
5502	Production engineering/ Processing studies	1 Modeling for production
		2 Production Systems
		3 Production management
		4 Process design
		5 Machine tools
		6 Forming process
		7 Cutting/Grinding process
		8 Special processing
		9 Ultraprecision machining
		10 Nano/Micro machining
		11 Precise positioning/Measurements
5503	Design engineering/ Machine functional elements/ Tribology	1 Design engineering
		2 Shape modeling
		3 CAD·CAM·CAE
		4 Synectics
		5 Dynamics of mechanisms
		6 Machine elements
		7 Functional components
		8 Failure diagnostics
		9 Safety design
		10 Life cycle analysis and design
		11 Recycle design
		12 Tribology
		13 Nano/Micro tribology
5504	Fluid engineering	1 Computational fluid dynamics
		2 Flow measurements
		3 Compressible/Incompressible flow
		4 Turbulent flow
		5 Multi-phase flow
		6 Reacting flow
		7 Non-Newtonian flow
		8 Micro flow
		9 Molecular fluid dynamics
		10 Bio-fluid mechanics
		11 Environmental fluid mechanics
		12 Acoustics
		13 Fluid machinery
		14 Fluid power systems
5505	Thermal engineering	1 Thermophysical property
		2 Convection
		3 Heat conduction
		4 Thermal radiation
		5 Mass transfer
		6 Combustion
		7 Nano/Micro thermal engineering
		8 Thermal engine
		9 Refrigeration/Air conditioning
		10 Heat transfer equipment
		11 Energy engineering
		12 Bio thermal engineering

(Discipline: Mechanical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5506	Dynamics/ Control	1 Dynamics
		2 Dynamic design
		3 Vibration mechanics
		4 Vibration analysis/tests
		5 Control instrument
		6 Motion control
		7 Vibration control
		8 Mechanical measurements
		9 Aseismic/Seismic isolation design
		10 Vehicle and transport system control
		11 Acoustic information/Acoustical control
		12 Acoustic energy
5507	Intelligent mechanics/ Mechanical systems	1 Robotics
		2 Mechatronics
		3 Nano/Micro mechatronics
		4 Biomechanics
		5 Softmechanics
		6 Information equipment/Intelligent (smart) machine systems
		7 Precision mechanics and systems
		8 Human-machine systems
		9 Information systems

Discipline: Electrical and electronic engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
5601	Power engineering/ Power conversion/ Electric machinery	1 Electrical energy engineering (generation/conversion/storage, and energy conservation)
		2 Power system engineering
		3 Electric machinery
		4 Power electronics
		5 Effective utilization of electric energy
		6 Electric/Electromagnetic compatibility
		7 Illumination/Lighting
5602	Electronic materials/ Electric materials	1 Electrical and electronic materials(semiconductor, dielectric,magnetic, ferro-dielectric,organic,insulator, superconductor,etc.)
		2 Thin film/Quantum structure
		3 Thick film
		4 Fabrication/Characterization method
5603	Electron device/ Electronic equipment	1 Electron device/Integrated circuits
		2 Circuit design/Computer aided circuit design (CAD)
		3 Optical devices and circuits
		4 Quantum devices/Spintronic devices
		5 Microwave/Millimeter wave/Terahertz wave
		6 Wave technology and applications
		7 Bio devices
		8 Information storage/record
		9 Display
		10 Sensing devices
		11 Micro fabrication process technology
		12 Interconnect,packaging and system integration
5604	Communication/ Network engineering	1 Electronic circuits and systems
		2 Nonlinear theory/circuits
		3 Information theory
		4 Signal processing
		5 Communication systems (wireless, wired, satellite, optical and mobile)
		6 Modulation/Demodulation
		7 Coding/Decoding
		8 Protocol
		9 Antennas
		10 Routing/Switching
		11 Networks/Local area networks (LAN)
		12 Multimedia
		13 Cryptography/Security

(Discipline: Electrical and electronic engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5605	Measurement engineering	1 Measurement technology
		2 Measuring/Analyzing instruments
		3 Measurement systems
		4 Signal processing
		5 Sensing information processing
5606	Control engineering/ System engineering	1 Control theory
		2 System theory
		3 Knowledge-based control
		4 Control technology
		5 Control systems
		6 Complex systems
		7 System information (knowledge) processing
		8 Social systems engineering
		9 Management systems engineering
		10 Environmental systems engineering
		11 Production systems engineering
		12 Biosystems engineering

(Discipline: Civil engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5706	Civil and environmental engineering	1 Environmental planning and management
		2 Environmental systems
		3 Environmental conservation
		4 Water and wastewater systems
		5 Domestic and industrial wastes
		6 Soil and water environments
		7 Atmospheric circulation/Noise and vibration
		8 Ecological engineering

Discipline: Civil engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
5701	Civil engineering materials/ Construction/ Construction management	1 Concrete
		2 Steel
		3 Polymeric materials
		4 Composite material/New materials
		5 Timber
		6 Construction
		7 Pavement/Bituminous materials
		8 Maintenance/Management
		9 Construction business plan/Construction design
		10 Construction management
		11 Underground space
		12 Civil engineering informatics
5702	Structural engineering/ Earthquake engineering/ Maintenance management engineering	1 Applied mechanics
		2 Structural engineering
		3 Steel structure
		4 Concrete structure
		5 Hybrid structure
		6 Wind engineering
		7 Earthquake engineering
		8 Earthquake resistant structure
		9 Earthquake disaster prevention
		10 Maintenance engineering
5703	Geotechnical engineering	1 Soil mechanics
		2 Foundation engineering
		3 Rock engineering
		4 Engineering geology
		5 Ground behavior
		6 Ground and structure
		7 Geotechnical disaster prevention
		8 Geo-environmental engineering
		9 Tunnel engineering
5704	Hydraulic engineering	1 Hydraulics
		2 Environmental hydraulics
		3 Hydrology
		4 River engineering
		5 Water resources engineering
		6 Coastal engineering
		7 Port engineering
		8 Ocean engineering
5705	Civil engineering project/ Traffic engineering	1 Infrastructure planning
		2 Regional/Urban planning
		3 Nationwide spatial planning
		4 Disaster prevention planning/Environmental planning
		5 Transportation planning
		6 Traffic engineering
		7 Railway engineering
		8 Surveying/Remote sensing
		9 Landscape architecture/Design
		10 Infrastructure history

Discipline: Architecture and building engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
5801	Building structures/ Materials	1 Load theory
		2 Structural analysis
		3 Structural design
		4 Concrete structure
		5 Steel structure
		6 Timber structure
		7 Composite structure
		8 Foundation
		9 Structural material
		10 Building construction method
		11 Maintenance technology
		12 Earthquake disaster prevention
		13 Structure control
		14 Earthquake resistant design
		15 Wind resistant design
5802	Architectural environment/ Equipment	1 Sound/Vibration environment
		2 Light environment
		3 Heat environment
		4 Air environment
		5 Environmental equipment planning
		6 Environmental psychology/physiology
		7 Building equipment
		8 Fire engineering
		9 Global/Urban environment
		10 Environment designing
5803	Town planning/ Architectural planning	1 Planning theory
		2 Design theory
		3 Housing theory
		4 Building types/District facilities
		5 Urban/Regional planning
		6 Administration/System
		7 Building/Urban economy
		8 Production management
		9 Disaster prevention planning
		10 Landscape/Environmental planning
5804	Architectural history/Design	1 Architectural history
		2 Urban history
		3 Architectural theory
		4 Design
		5 Style
		6 Landscape/Environment
		7 Preservation/Renovation

Discipline: Material engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
5901	Physical properties of metals/Metal-base materials	1 Electronic/Magnetic properties
		2 Mechanical/Thermal/Optical properties
		3 Properties of surfaces/Interfaces/Thin films
		4 Magnetic/Electronic/Information Materials
		5 Superconductors/Semiconductors
		6 Amorphous/Metallic glasses/Quasicrystals
		7 First principles calculations/Material design simulations
		8 Atomic/Electronic structural characterization
		9 Diffusion/Phase transformation/Phase diagrams

(Discipline: Material engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5902	Inorganic materials/ Physical properties	1 Crystal structure/Microstructure control
		2 Mechanical/Electronic/Electromagnetic/Optical /Thermal properties
		3 Surface/Interface control
		4 Functional ceramics
		5 Functional glasses
		6 Structural ceramics
		7 Carbon materials
		8 Dielectric materials
		9 Inorganic material synthesis and process
5903	Composite materials/ Surface and interface engineering	1 Functional composites
		2 Structural composites
		3 Hybrid/Smart/Biomaterials
		4 Surface/Interface/Grain boundary control
		5 Plasma/Laser/Surface treatment and process
		6 Durability/Environmental degradation/Monitoring/Evaluation
		7 Bonding/Adhesion/Welding
		8 Recyclable bonding/Composites
		9 Design/Fabrication process/Forming
		10 Complex polymer
5904	Structural/ Functional materials	1 Strength/Fracture toughness
		2 Reliability
		3 Energy materials
		4 Fuel cell/Electric cell materials
		5 Sensor materials/Optical functional materials
		6 Biomaterials/Medical materials/Welfare materials
		7 Multifunctional materials
		8 Infrastructure materials
		9 Functional polymeric materials
5905	Material processing/ Microstructural control engineering	1 Plastic forming/Shaping
		2 Mechanical/Thermal treatments
		3 Precision/Non-conventional process
		4 Crystal structure/Microstructure control
		5 Electrochemical process
		6 Powder process/Powder metallurgy
		7 Thin film/Plating/Wiring process
		8 Electrocatalysis
5906	Metal making/ Resource production engineering	1 Reaction/Separation/Refining
		2 Melting/Solidification
		3 Casting
		4 Crystal growth/Fabrication
		5 Various manufacturing process
		6 Ecological materials/Energy saving process
		7 Process for scarce resource substitution/Ubiquitous materials
		8 Environmental purification/Low environmental burden/Sustainable materials
		9 Recycling/Recycling process/Reuse/Transduction
		10 Resource separation/Safeguard/Securing

Discipline: Process/Chemical engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
6001	Properties in chemical engineering process/ Transfer operation/ Unit operation	1 Equilibrium/Transport properties
		2 Fluid/Heat transfer/Mass transfer operation
		3 Distillation
		4 Extraction
		5 Absorption
		6 Adsorption
		7 Ion exchange
		8 Membrane separation
		9 Hetero-phase separation
		10 Ultra high separation
		11 Stirring/Blending operation
		12 Granular and powdered materials operation
		13 Crystallization procedure
		14 Thin film/Microparticle forming operation
		15 Polymer processing

(Discipline: Process/Chemical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6002	Reaction engineering/ Process system	1 Gas/Liquid/Solid/Supercritical fluid operation
		2 Novel reaction field
		3 Reaction rate
		4 Reaction mechanism
		5 Reaction apparatus
		6 Materials synthesis process
		7 Polymerization process
		8 Measurement
		9 Sensors
		10 Process control
		11 Processing system design
		12 Process information processing
		13 Process operation/Facilities management
6003	Catalyst/ Resource chemical process	1 Catalysis reaction
		2 Catalyst preparation chemistry
		3 Catalyst performance analysis
		4 Energy conversion process
		5 Fossil fuel effective utilization technology
		6 Resources/Energy effective utilization technology
		7 Resources/Energy saving technology
		8 Combustion technology
6004	Biofunction/ Bioprocess	1 Biocatalyst engineering
		2 Biofunction engineering
		3 Food engineering
		4 Medicochemical engineering
		5 Bioproduction process
		6 Environmental Bioprocess
		7 Micro/Nano Bioprocess
		8 Applied bioelectrochemistry
		9 Bioreactor
		10 Biosensor
		11 Bioseparation
		12 Biorefinery
		13 Bioinformatics

Discipline: Integrated engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
6101	Aerospace engineering	1 Aerodynamics
		2 Structure/Material
		3 Vibration/Strength
		4 Guidance/Navigation/Control
		5 Propulsion/Engine
		6 Flight dynamics
		7 Aerospace system
		8 Design/Instrumentation
		9 Special aircraft
		10 Space utilization/Exploration
		11 Aerospace environment
6102	Naval and maritime engineering	1 Propulsion/Vessel dynamics
		2 Material/Structural mechanics
		3 Ship and marine hydrodynamics
		4 Planning/Design/Production system
		5 Shipbuilding/Equipment
		6 Maritime transportation system
		7 Marine engine/Fuel
		8 Marine environment
		9 Marine resources/Energy
		10 Ocean exploration/Equipment
		11 Undersea and subsea engineering
		12 Polar engineering
13 Maritime systems		

(Discipline: Integrated engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6103	Earth system and resources engineering	1 Applied geology
		2 Geo-engineering
		3 Remote sensing
		4 Monitoring in Geo-engineering
		5 Earth systems
		6 Resource exploration
		7 Natural resource development
		8 Resource evaluation
		9 Mineral processing
		10 Underground disposal and storage
		11 Contaminated soil remediation
		12 Development and utilization of deep underground
		13 Material resources
		14 Renewable source/Energy
		15 Economic resources
6104	Nuclear fusion studies	1 Core plasma
		2 Peripheral/divertor plasma
		3 Plasma measurement
		4 Fusion theory/simulation
		5 Plasma-wall interaction
		6 Plasma facing component/Plasma heating device
		7 Fuel/Blanket
		8 Low activation material
		9 Electromagnet
		10 Inertial confinement fusion
		11 Fusion systems engineering
		12 Safety/Biological influence/Social environment
6105	Nuclear engineering	1 Radiation engineering/Beam science
		2 Reactor physics/Nuclear data
		3 Nuclear measurements/Radiation physics
		4 Thermo-Hydrodynamics
		5 Structure
		6 System design/Safety engineering
		7 Nuclear material/Nuclear fuel
		8 Isotope/Radiation chemistry
		9 Fuel cycle
		10 Backend
		11 Advanced reactors
		12 Health physics/Environmental safety
		13 Social environment of nuclear energy
6106	Energy engineering	1 Energy generation/conversion
		2 Energy transport/storage
		3 Energy saving/Efficient use of energy
		4 Energy system
		5 Environmental harmony
		6 Natural energy use

Category: Biological Sciences

Area: Biological Sciences

Discipline: Neuroscience

Item Number	Research Field	Screening Sub-panel Number / Keyword
6201	Neurophysiology / General neuroscience	1 Molecular and cellular neuroscience
		2 Developmental and regenerative neuroscience
		3 Neuroendocrinology
		4 Clinical neuroscience
		5 Neuroinformatics
		6 Behavioral neuroscience
		7 Computational neuroscience
		8 (Nervous) System physiology
		9 Somatic, visceral or special sensation
6202	Nerve anatomy/ Neuropathology	A [Neuroanatomy]
		1 Neural network
		2 Neurohistology
		3 Molecular neurobiology
		4 Neural fine structure
		5 Neurohistochemistry and neurocytochemistry
		6 Neural development and its abnormality
		7 Neural regeneration, remodeling and plasticity
		8 Experimental morphology of the nervous system
		9 Anatomical study of neuroimaging
		10 Neurocytology
		B [Neuropathology]
		11 Cellular neuropathology
		12 Molecular neuropathology
		13 Neurodegenerative diseases
		14 Developmental or metabolic disorders
		15 Demented disorders
		16 Cerebrovascular disorders
17 Brain tumors		
18 Spinal, peripheral nervous system or muscular disorders		
6203	Neurochemistry/ Neuropharmacology	1 Molecular and cellular neurobiology
		2 Development, differentiation, and aging
		3 Neurotransmitters and receptors
		4 Intracellular signal transduction
		5 Glial cells
		6 Pathophysiology and therapy of neuropsychiatric diseases
		7 Stem cell biology, regeneration, and repair
		8 Neural plasticity
		9 Neuropharmacology
		10 Drug development
		11 Genomic neuroscience

Discipline: Laboratory animal science

Item Number	Research Field	Screening Sub-panel Number / Keyword
6301	Laboratory animal science	1 Environmental facilities
		2 Infectious diseases
		3 Cryopreservation
		4 Biosafety
		5 Disease models
		6 Breeding genetics
		7 Developmental engineering
		8 Laboratory animal welfare
		9 Animal experiment technology
		10 Bioresource for research
		11 Evaluation methods

Discipline: Oncology

Item Number	Research Field	Screening Sub-panel Number / Keyword
6401	Tumor biology	1 Genome instability
		2 Epigenetics
		3 Cancer genome analysis
		4 Carcinogenesis
		5 Inflammation and cancer
		6 Laboratory animal models
		7 Genetically-modified animals
		8 Oncogene
		9 Tumor suppressor gene
		10 Signal transduction
		11 DNA replication
		12 Cell cycle
		13 Cancer and heredity
		14 Apoptosis
		15 Cell polarity
		16 Cell adhesion and movement
		17 Invasion and metastasis
		18 Characteristics of cancer cells
		19 Cancer microenvironment
		20 Angiogenesis
		21 Lymphangiogenesis
		22 Stem cells
		23 Cellular senescence
		24 Cellular immortalization
		25 Epidemiologic study
		26 Biobank
		27 Interaction of gene and environment
		28 Prevention and intervention study
		29 Chemoprophylaxis
		30 Interface of cancer research and society
6402	Tumor diagnostics	1 Genome analysis
		2 Proteomics analysis
		3 Expression analysis
		4 Individuality diagnosis of cancer
		5 Order-made medical treatment
		6 Drug efficacy and calculation
		7 Biomarkers
		8 Tumor markers
		9 Molecule imaging
		10 Epigenome
		11 miRNA
		12 Functional RNA
6403	Tumor therapeutics	1 Antitumor substance research and chemical biology
		2 Chemotherapy
		3 Molecular target therapy
		4 Endocrine therapy
		5 Drug delivery
		6 Physical therapy
		7 Gene therapy
		8 Nucleic acid therapy
		9 Cell therapy
		10 Humoral immunity
		11 Cell immunity
		12 Antibody therapy
		13 Immunotherapy
		14 Vaccine therapy
		15 Adoptive immunotherapy
		16 Cytokine
		17 Immunosuppression
		18 Immune activation

Discipline: Genome science

Item Number	Research Field	Screening Sub-panel Number / Keyword
6501	Genome biology	1 Genome structural diversity
		2 Animal genome
		3 Plant genome
		4 Microbial genome
		5 Metagenome
		6 Organelle genome
		7 Genome evolution
		8 Genome architecture
		9 Genome maintenance and repair
		10 Expression of genome function
		11 Regulation of gene expression
		12 Transcriptome
		13 Proteome
		14 Metabolome
		15 Epigenome
		16 Comparative genome
		17 Biodiversity
6502	Medical genome science	1 Disease-associated gene
		2 Personalized medicine
		3 Gene diagnosis
		4 Human genome diversity
		5 Genome medicine
		6 Regenerative medicine
		7 Genome-wide association study
		8 Human genome resequencing
		9 Genome of model animals
		10 Disease epigenomics
		11 Human population genetics
		12 Statistical genetics
		13 Medical informatics
		14 Human and animal bacterial flora
6503	System genome science	1 Gene networks
		2 Protein networks
		3 Metabolic networks
		4 Development and differentiation
		5 Synthetic biology
		6 Database biology
		7 Biological databases
		8 Modeling and simulation
		9 Bioinformatics
		10 Genome analysis technology
		11 Functional RNA
		12 Epigenomic control
		13 Genome biotechnology
		14 Genetic resources

Discipline: Conservation of biological resources

Item Number	Research Field	Screening Sub-panel Number / Keyword
6601	Conservation of biological resources	1 Conservation biology
		2 Biodiversity conservation
		3 Conservation of biological strains
		4 Conservation of genetic resources
		5 Ecosystem conservation
		6 Native species conservation
		7 Microbial culture collections
		8 Cell/Tissue/Seed Preservation

Area: Biology

Discipline: Biological Science

Item Number	Research Field	Screening Sub-panel Number / Keyword
6701	Molecular biology	1 Chromosomal organization,function and segregation
		2 Epigenetics
		3 Chromatin dynamics
		4 DNA replication
		5 DNA damage and repair
		6 Recombination
		7 Transcription and transcriptional regulation
		8 Post-transcriptional regulation
		9 RNA
		10 Translation
		11 Post-translational modification
		12 Super-molecular complex
6702	Structural biochemistry	1 Carbohydrate
		2 Lipid
		3 Nucleic acid
		4 Protein
		5 Enzyme
		6 Gene and chromosome
		7 Biological membrane and receptor
		8 Intercellular matrix
		9 Organelle
		10 Posttranslational modification
		11 Molecular recognition and interaction
		12 Denaturation and folding
		13 Structural analysis and prediction
		14 NMR
		15 Mass spectrometry
		16 X-ray crystallography
		17 High-resolution electron microscopy
6703	Functional biochemistry	1 Catalytic mechanism of enzyme
		2 Regulation of enzyme
		3 Gene expression and replication
		4 Biological energy transduction
		5 Metalloprotein
		6 Biological trace element
		7 Hormone and bioactive substances
		8 Cell signal transduction
		9 Membrane transport and transporters
		10 Proteolysis
		11 Cytoskeleton
		12 Immunobiochemistry
		13 Glycobiology
		14 Bioelectrochemistry
6704	Biophysics	1 Structures, dynamics and functions of proteins and nucleic acids
		2 Motility/Transport
		3 Biomembranes/Receptors/Channels
		4 Photobiology
		5 Cellular signaling and dynamics
		6 Neural information processing
		7 Theoretical biology/Bioinformatics
		8 Structural biology
		9 Folding
		10 Prediction of structure and function
		11 Single-molecule measurements and manipulation
		12 Bioimaging
		13 Non-equilibrium/Complex systems

(Discipline: Biological Science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6705	Cell biology	1 Cell structure and function
		2 Biomembrane
		3 Cytoskeleton/Cell motility
		4 Intracellular signaling
		5 Intercellular communication
		6 Cell cycle
		7 Cytokinesis
		8 Nuclear structure and function
		9 Cell-cell interaction/Extracellular matrix
		10 Protein degradation
		11 Chromatin
		12 Organella-genesis and dynamics
6706	Developmental biology	1 Cell differentiation
		2 Stem cells
		3 Germ layer formation and gastrulation
		4 Organogenesis
		5 Fertilization
		6 Germ cells
		7 Regulation of gene expression
		8 Developmental genetics
		9 Evolution and development

Discipline:Basic biology

Item Number	Research Field	Screening Sub-panel Number / Keyword
6801	Plant molecular biology/Plant physiology	1 Plastid function/Photosynthesis
		2 Phytohormones/Growth and development/Totipotency
		3 Organelles/Cell wall
		4 Response to environmental factors
		5 Plant-microbe interaction/Symbiosis
		6 Metabolism
		7 Plant molecular function
6802	Morphology/ Structure	1 Animal morphology
		2 Plant morphology
		3 Microorganisms and algae morphology
		4 Comparative endocrinology
		5 Molecular morphology
		6 Morphogenesis and simulation
		7 Tissue construction
		8 Microstructure
		9 Microscopic techniques and imaging
6803	Animal physiology/ Animal behavior	1 Metabolism
		2 Neurobiology
		3 Neuroethology
		4 Behavioral physiology
		5 Animal physiology and biochemistry
6804	Genetics/ Chromosome dynamics	1 Cytogenetics
		2 Population genetics
		3 Evolutionary genetics
		4 Human genetics
		5 Genetic diversity
		6 Developmental genetics
		7 Behavioral genetics
		8 Mutagenesis
		9 Chromosome rearrangement and maintenance
		10 Model organism development
		11 Transposon
		12 QTL analysis
		13 Epigenetics

(Discipline:Basic biology)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6805	Evolutionary biology	1 Origin of life
		2 Origin of eukaryotic organisms
		3 Origin of organelles
		4 Origin of multicellularity
		5 Molecular evolution
		6 Morphological evolution
		7 Evolution of function
		8 Evolution of genes
		9 Evolutionary biology in general
		10 Comparative genomics
		11 Experimental evolutionary biology
6806	Biodiversity/ Systematics	1 Metabolism physiology
		2 Classification system
		3 Evolution
		4 Genetic diversity
		5 Population/Species diversity
		6 Community/Ecosystem diversity
		7 Taxonomic character
		8 Phylogenetics
		9 Speciation
		10 Natural history
		11 Museum
6807	Ecology/ Environment	1 Population
		2 Society
		3 Species interaction
		4 Assemblage
		5 Ecosystem
		6 Evolutionary ecology
		7 Behavioral ecology
		8 Natural environment
		9 Physiological ecology
		10 Molecular ecology
		11 Conservation ecology

Discipline:Anthropology

Item Number	Research Field	Screening Sub-panel Number / Keyword
6901	Physical anthropology	1 Morphology
		2 Prehistory/Chronology
		3 Biomechanism
		4 Molecular anthropology/Genetics
		5 Ecology
		6 Primates
		7 Evolution
		8 Growth/Aging
		9 Society
		10 Behavior/Cognition
		11 Reproduction/Development
		12 Bone archaeology
		13 Geographic diversity
6902	Applied anthropology	1 Physiological anthropology
		2 Ergonomics
		3 Physiological polymorphism
		4 Environmental adaptive capacity
		5 Systemic relationship
		6 Functional potential
		7 Techno-adaptability
		8 Somatometry
		9 Clothing
		10 Somatology/Adaptation
		11 Constitution/Health
		12 Forensic anthropology
		13 Medical anthropology

Area: Agricultural sciences

Discipline: Plant production and environmental agriculture

Item Number	Research Field	Screening Sub-panel Number / Keyword
7001	Science in genetics and breeding	1 Gene expression control/Epigenomics
		2 Gene regulatory network
		3 Omics analysis
		4 Transposon
		5 Organelle
		6 Growth/Developmental genetics
		7 Genome/Chromosome analysis
		8 Reproduction/Hybrid/Ploidy genetics
		9 Environmental stress
		10 Biotic stress
		11 Yield/Biomass
		12 Processing suitability/Quality improvement
		13 Genetic/Breeding resources/Biodiversity
		14 Genetic map/QTL analysis
		15 Gene introduction/mutagenesis
		16 Genome breeding/DNA marker-assisted selection
		17 Breeding theories/Bioinformatics
		18 Genetically engineered crop production/Assessment
7002	Crop production science	1 Food crops
		2 Industrial crops
		3 Forage and grassland crops
		4 Biofuel plants
		5 Resource plants
		6 Cultivation/Cropping system
		7 Farming system
		8 Crop quality/Palatability
		9 Weed science
		10 Weed control
		11 Allelochemicals
		12 Organic farming
		13 Environmentally friendly crop production
		14 Phytoremediation
		15 Management of uncultivated field
		16 Soil fertility management
		17 Stress responses
		18 Growth environment/Climatic variation
		19 Growth forecasting/Modeling
7003	Horticultural science	1 Fruit trees
		2 Vegetable crops
		3 Ornamental and landscape plants
		4 Plant production technology
		5 Transgenic and molecular biological technology
		6 Horticultural genomics and bioinformatics
		7 Pollination/Fertilization/Embryogenesis
		8 Fruit growth and ripening
		9 Plant growth failure and physiological disorders
		10 Plant growth regulators
		11 Plant pigments, aromatic compounds, and functional ingredients
		12 Environmental response and control
		13 Protected horticulture and plant factory
		14 Postharvest and processing technologies
		15 Stock and seed production, and plant propagation
		16 Plant hunting and plant genetic resources
		17 Biometrics and horticultural robotics
		18 Horticultural well-being and horticultural therapy

(Discipline: Plant production and environmental agriculture)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7004	Plant protection science	1 Plant pathogens
		2 Nematode and parasitic higher plants
		3 Genome
		4 Phylogenetic systematics/Evolution
		5 Pathogenicity and virulence
		6 Resistance
		7 Disease occurrence
		8 Diagnosis of plant diseases
		9 Identification
		10 Disease control and treatment of disorder
		11 Infection • ecology • vectors
		12 Host specificity
		13 Plant pathological physiology
		14 Plant-microbe interactions
		15 Plant physiological diseases
		16 Postharvest diseases
		17 Breeding of tolerant crops
		18 RNA silencing
		19 Endophyte and mycorrhizal fungus/symbiotic bacteria
		20 Agricultural chemicals and biological control agents
		21 Drug and herbicide-resistance
		22 Disorder by agricultural chemicals
		23 Plant growth regulators and plant activators
		24 Natural bioactive substances
		25 Disease and insect pest management
		26 Mite and nematode management
		27 Weed management
		28 Introduced plants
		29 Allelopathy
		30 Integrated pest management
		31 Insect vectors
		32 Insect pest population
		33 Natural enemy
		34 Invasive insects and pathogens
		35 Insect taxonomy
		36 Occurrence forecast
		37 Management of birds and beasts
		38 Environmental stress responses / tolerance
		39 Plant growing environment
		40 Physical and cultural pest control
		41 Diseases- and insect pest-resistant crops
		42 Plant wound responses
		43 Insect-plant interactions

Discipline: Agricultural chemistry

Item Number	Research Field	Screening Sub-panel Number / Keyword
7101	Plant nutrition/ Soil science	1 Plant physiology, growth and development
		2 Plant nutrition and metabolism
		3 Plant metabolic regulation
		4 Plant molecular physiology
		5 Fertilizer
		6 Pedogenesis/Soil classification
		7 Soil physics
		8 Soil chemistry
		9 Soil organisms
		10 Soil environment
		11 Soil ecology
		12 Soil fertility
		13 Soil pollution control

(Discipline: Agricultural chemistry)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7102	Applied microbiology	1 Microbial classification
		2 Fermentative production
		3 Microbial physiology
		4 Microbial genetics/breeding
		5 Microbial enzyme
		6 Microbial metabolism
		7 Microbial function
		8 Microbial application
		9 Environmental microorganism
		10 Secondary metabolite production
		11 Microbial ecology
		12 Control of microbe
		13 Genetic resources
		14 Gene expression
		15 Metabolic engineering
		16 Environmental and cellular responses
		17 Microbial genomics
7103	Applied biochemistry	1 Animal biochemistry
		2 Plant biochemistry
		3 Enzyme application
		4 Genetic engineering
		5 Protein engineering
		6 Structural biology
		7 Bioengineering
		8 Metabolic engineering
		9 Enzyme chemistry
		10 Glycoscience / Lipid science
		11 Cell/Tissue culture
		12 Metabolism and physiology
		13 Gene expression
		14 Production of useful material
		15 Cellular response
		16 Signal transduction
		17 Trace element
7104	Bioorganic chemistry	1 Bioactive substance
		2 Regulator of cell function
		3 Pesticide science
		4 Plant growth substance
		5 Signal molecule
		6 Biosynthesis
		7 Natural products chemistry
		8 Chemical biology
		9 Physical chemistry
		10 Analytical chemistry
		11 Synthetic organic chemistry
		12 Bioregulatory chemistry
		13 Molecular recognition
		14 Structure-activity relationship
7105	Food science	1 Food chemistry
		2 Food biochemistry
		3 Food function
		4 Nutritional chemistry
		5 Nutritional biochemistry
		6 Molecular biology of nutrition
		7 Nutrigenomics
		8 Food physics
		9 Food analysis
		10 Food engineering
		11 Food manufacturing/processing
		12 Food storage
		13 Food safety

Discipline: Forest and forest products science

Item Number	Research Field	Screening Sub-panel Number / Keyword
7201	Forest science	1 Ecology/Biodiversity
		2 Genetics/Breeding
		3 Physiology
		4 Taxonomy
		5 Environment
		6 Silviculture
		7 Pathology/Microorganism
		8 Insect/Animal
		9 Planning/Management
		10 Policy/Economics
		11 Sustainable forestry
		12 Operational system/Road/Machinery
		13 Erosion control/Slope conservation and torrent disaster prevention/Revegetation
		14 Water resource/Hydrologic cycle
		15 Material circulation/Flux
		16 Climate change/Carbon balance
		17 Biomass
		18 Landscape ecology/Landscape design/Landscape management
		19 Environmental education/Forest education
7202	Wood science	1 Wood anatomy
		2 Wood formation/Physical properties
		3 Cellulose/Hemicellulose
		4 Lignin
		5 Extractives/Bioactive component
		6 Microbiology
		7 Mashroom/Wood rotting fungi
		8 Chemical processing/Adhesion
		9 Preservation/Wood culture
		10 Wood drying
		11 Machining
		12 Wood based material
		13 Strength/Wooden construction
		14 Habitability
		15 Forest product education
		16 Woody biomass
		17 Pulp and paper

Discipline: Applied aquatic science

Item Number	Research Field	Screening Sub-panel Number / Keyword
7301	Aquatic bioproduction science	1 Aquatic environment
		2 Biological environment
		3 Environmental conservation
		4 Water/Sediment quality
		5 Ocean/Material cycle
		6 Seaweed beds/Tidal flats
		7 Restoration/Regeneration
		8 Environmental microbiology
		A 9 Plankton
		10 Nekton
		11 Benthos
		12 Red tide
		13 Environmental toxicology
		14 Aquatic ecosystem
		15 Global warming
		16 Biodiversity
		17 Remote sensing
		18 Taxonomy/Morphology
		19 Ecology/Ethology
		20 Bio-logging
		21 Resources/Resource management
		22 Fisheries
		23 Aquaculture
		B 24 Aquatic animals
		25 Aquatic plants
		26 Genetics/Hereditiy/Breeding
		27 Fish disease/Aquatic pathology
		28 Fisheries Engineering
		29 Fishing community/Fisheries Policy
		30 Fisheries Economics/Management/Marketing
		31 Fisheries education
		32 Fisheries Development
7302	Aquatic life science	1 Developmental biology
		2 Physiology
		3 Immunology/Biological defense
		4 Metabolism/Enzyme
		5 Fish nutrition
		6 Biochemistry
		7 Molecular biology
		8 Marine genomics
		9 Genetic resources
		10 Bioengineering
		11 Functional microbiology
		12 Glycobiology
		13 Chemical biology
		14 Biomimetics
		15 Bioactive substance
		16 Natural products chemistry
		17 Biopolymer
		18 Analytical chemistry
		19 Aquatic food chemistry
		20 Functional food
		21 Aquatic food processing/Preservation
		22 Food microbiology
		23 Food hygiene and sanitation
		24 Aquatic biotoxin
		25 Food safety
		26 Zero emission
		27 Aquatic biomass utilization
		28 Bioenergy

Discipline: Agricultural science in society and economy

Item Number	Research Field	Screening Sub-panel Number / Keyword
7401	Agricultural science in management and economy	1 Food Self-Sufficiency and Food Security
		2 Food Economy
		3 Economy and Planning of Rural Community and Fishing Village
		4 Agriculture Related Industries
		5 Economy of Food, Agriculture and Environment
		6 Food Policy
		7 Policy for Agriculture, Forestry and Fishery
		8 International Food Economy and Trade
		9 Investment and Finance for Agriculture, Forestry and Fishery
		10 Distribution of Food and Agriculture and Fishery Products
		11 Food System
		12 Food Safety and Risk Management
		13 Management in Agriculture, Forestry and Fishery
		14 Assessment of Technology and Knowledge in Agriculture, Forestry and Fishery
		15 Management, Diagnosis and Evaluation on Business
		16 Land Utilization
		17 Value Added to Agricultural Product
		18 Marketing
		19 Management Ethics and CSR
		20 Cooperative Farming in Community
		21 Organizational Support to Agriculture, Forestry and Fishery
		22 Driving Force for Management
		23 Information System for Food and Agriculture
		24 Entry of Enterprise into Agriculture
		25 Agricultural Extension
7402	Agricultural science in rural society and development	1 Rural Society
		2 Rural Life
		3 Direct Linkage with Production and Consumption in Local Area
		4 Education for Food and Agriculture
		5 Leader in Rural Community and NPO
		6 Interaction between Urban and Rural Inhabitant
		7 Women Participation in Agriculture and Social Activities
		8 Society and Culture in Rural Community
		9 Multiple Functions in Agriculture and Rural Community
		10 Agricultural History and Comparison on Farming System
		11 Ideology and Ethics in Agriculture
		12 International Agriculture
		13 International Development for Rural Community and Fishing Village
		14 Project Management for Rural Development
		15 Extension and Transfer on Technology
		16 Dietary Transition
		17 Commons

Discipline: Agro-engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword
7501	Rural environmental engineering/ Planning	1 Irrigation and drainage
		2 Reclamation and conservation of agricultural land
		3 Rural planning
		4 Rural environment
		5 Rural landscape and ecosystem
		6 Rural development and sustainability
		7 Material and energy cycle management
		8 Water resources
		9 Renewable Energy
		10 Rural governance
		11 Disaster prevention
		12 Soil environmental conservation
		13 Agricultural facilities and stock management
		14 Rural roads
		15 Rural sewerage
		16 International agriculture and rural development
		17 Hydraulics
		18 Hydrometeorology
		19 Water environment
		20 Soil physics
		21 Soil mechanics
		22 Applied mechanics
		23 Design and construction materials
7502	Agricultural environmental engineering/ Agricultural information engineering	1 Bioproduction system
		2 Bioproduction machinery
		3 Greenhouse horticulture/Plant factory
		4 Environment control in biology
		5 Bioprocessing
		6 Agricultural production environment
		7 Agricultural meteorology/Micrometeorology
		A 8 Meteorological disasters
		9 Global environment and global warming
		10 Environmental remediation and greening process
		11 Renewable energy
		12 Farming technology management
		13 Agricultural labour science
		14 Postharvest engineering
		15 Supply chain management
		16 Bioinstrumentation
		17 Cell measurement techniques
		18 Nondestructive measurement
		19 Imaging analysis
		20 Environmental stresses
		21 Biosensing
		22 Image information and image recognition
		23 Agribioinformatics
		B 24 Remote sensing
		25 Geographic information system
		26 Modeling/Simulation
		27 Computer network and ICT
		28 Agricultural robotics
		29 Precision agriculture
		30 Bioenvironmental information
		31 Agricultural information
		32 Farming information

Discipline: Animal life science

Item Number	Research Field	Screening Sub-panel Number / Keyword
7601	Animal production science	1 Breeding
		2 Reproduction
		A 3 Nutrition/Feeding
		4 Feed/Feedstuff
		5 Metabolism/Endocrine control
		6 Animal hygiene
		7 Animal management/Welfare
		8 Environment
		9 Facilities/Production system
		10 Grassland/Pasture
		B 11 Grazing
		12 Animal product
		13 Manure management
		14 Livestock biomass
		15 Livestock farming
		16 Marketing of livestock products
7602	Veterinary medical science	1 Pathology
		2 Pathophysiology
		3 Pharmacology
		4 Toxicology
		A 5 Pathogenic microorganism
		6 Zoonosis
		7 Parasitology
		8 Veterinary public health
		9 Epidemic prevention
		10 Epidemiology
		11 Internal medicine
		12 Surgery
		13 Veterinary reproduction/Obstetrics
		14 Diagnostics/Laboratory examination
		B 15 Clinical pathology
		16 Therapy/Nursing
		17 Disease prevention and control
		18 Anesthesia/Analgetics
		19 Radiology
		20 Animal welfare/Ethics
7603	Integrative animal science	1 Physiology
		2 Histology
		3 Anatomy
		4 Endocrinology
		5 Cellular function
		6 Immunology
		7 Host defense
		A 8 Genetics
		9 Epigenetics
		10 Genome
		11 Development/Differentiation
		12 Bioinformatics
		13 Ecology
		14 Ethology
		15 Psychology
		16 Genetic engineering
		17 Cellular engineering
		18 Developmental biotechnology
		19 Stem cell
		20 Regenerative therapy
		21 Imaging
		B 22 Wildlife
		23 Experimental animal
		24 Animal models of disease
		25 Companion animal
		26 Animal-assisted therapy
		27 Bioresource
		28 Biodiversity

Discipline: Boundary agriculture

Item Number	Research Field	Screening Sub-panel Number / Keyword
7701	Insect science	1 Insect technology and biomaterial production
		2 Sericulture, silk
		3 Insect pathology
		4 Entomopathogenic microbes and viruses
		5 Insect ecology
		6 Insect physiology and biochemistry
		7 Insect molecular biology
		8 Insect behavior
		9 Insect population, community
		10 Insect evolution and systematics
		11 Insect genetics and genomics
		12 Insect development and reproduction
		13 Life history, seasonal adaptation
		14 Chemical ecology
		15 Chemical and physical communications
		16 Symbiosis, parasitism
		17 Spiders, mites, nematodes
		18 Apiculture
		19 Pollination
		20 Social insects
		21 Insect mimetics
7702	Environmental agriculture (including landscape science)	1 Biomass
		2 Biological environment
		3 Genetic resource
		4 Biodiversity
		5 Environmental analysis
		6 Environmental remediation
		7 Environmental purification
		8 Aquatic pollution
		9 Environmental adaptability
		A 10 Ecosystem services
		11 Resources-Environment balance
		12 Resource recycling systems
		13 Environmental value-assessment
		14 Low-carbon society
		15 LCA
		16 Environmentally friendly agriculture
		17 Watershed management
		18 Integrated agriculture and fisheries
		19 Regional agriculture
		20 Landscape design
		21 Landscape architecture
		22 Open space planning
		23 Landscape formation/Landscape conservation
		24 Cultural landscape
		25 Nature conservation/Nature restoration
		26 Urban environmental design
		27 Natural environmental assessment
		28 Biotope
		B 29 Public interest functions of ecosystem
		30 Landscape ecology
		31 Urban farmland
		32 Open space management
		33 Urban park/Disaster prevention park
		34 National park
		35 Planting engineering
		36 Urban green plant
		37 Tourism/Green-tourism, recreation
		38 Participatory town planning
		39 Social and environmental contribution green

(Discipline: Boundary agriculture)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7703	Applied molecular and cellular biology	1 Cell biology
		2 Chromosome engineering
		3 Glycosylation engineering
		4 Organelle engineering
		5 Cell / Tissue engineering
		6 Epigenetics
		7 Gene expression
		8 Development/Differentiation control
		9 Cell-cell interaction
		10 Intermolecular interaction
		11 Biological interaction
		12 Biosensor
		13 Cellular function
		14 Molecular information
		15 Functional-molecule design
		16 Proteomics
		17 Metabolomics
		18 Production of useful material
		19 Culture engineering
		20 Biologics

Area: Medicine, dentistry, and pharmacy

Discipline: Pharmacy

Item Number	Research Field	Screening Sub-panel Number / Keyword
7801	Chemical pharmacy	1 Organic chemistry
		2 Synthetic organic chemistry
		3 Biomolecules
		4 Natural products chemistry
		5 Mechanistic organic chemistry
		6 Heterocyclic chemistry
		7 Asymmetric synthesis
7802	Physical pharmacy	1 Physical chemistry
		2 Analytical chemistry
		3 Galenical pharmacy
		4 Biophysical chemistry
		5 Isotope pharmaceutical chemistry
		6 Biocomplex chemistry
		7 Molecular structure science
		8 Structural biology
		9 Imaging
		10 Drug delivery
		11 Information science
7803	Biological pharmacy	1 Biochemistry
		2 Molecular biology
		3 Immunology
		4 Cell biology
		5 Developmental biology
		6 Functional genomics
		7 Physiological chemistry
		8 Endocrinology
7804	Pharmacology in pharmacy	1 Pharmacology
		2 Analytical pharmacology
		3 Neurobiology
		4 Drug therapeutics
		5 Cellular signal transduction
		6 Toxicology and drug safety
		7 Systems pharmacology
		8 Pharmacogenomics
7805	Natural medicines	1 Pharmacognosy
		2 Medicinal resources
		3 Natural medicines
		4 Traditional Chinese-Japanese medicines
		5 Ethnomedicines
		6 Biosynthesis
		7 Antibiotics and microbial medicines
		8 Bioactive natural compounds
		9 Medicinal foods
7806	Drug development chemistry	1 Medicinal chemistry
		2 Medicinal molecular design
		3 Lead discovery
		4 Functional science of medicinal molecules
		5 Genomic drug development
		6 Regulatory science
		7 Chemical biology
		8 Biopharmaceutical
7807	Environmental and hygienic pharmacy	1 Environmental hygiene
		2 Environmental chemistry
		3 Environmental dynamics
		4 Food hygienics
		5 Chemical nutrition
		6 Microbiology and infectious diseases
		7 Toxicology
		8 Environmental toxicology
		9 Cosmetic and fragrance science
		10 Hygienic tests

(Discipline: Pharmacy)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7808	Medical pharmacy	1 Pharmacokinetics
		2 Drug metabolism
		3 Transporter
		4 Screening system for pharmacokinetics and metabolism
		5 Prediction system for human pharmacokinetics and metabolism
		6 Clinical chemistry
		7 Personalized medicine
		8 Clinical pharmaceutical sciences
		9 Medical pharmaceuticals
		10 Drug information and clinical toxicology
		11 Drug economics
		12 Social pharmacy
		13 Hospital pharmacy and pharmacy administration
		14 Clinical pharmacy education

Discipline: Basic medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
7901	General anatomy (including histology/embryology)	1 Gross anatomy
		2 Functional anatomy
		3 Clinical anatomy
		4 Comparative anatomy
		5 Radiological anatomy
		6 Morphogenesis and embryogenesis
		7 Teratology
		8 Experimental morphology
		9 Anatomical education
		10 Cytology
		11 Histology
		12 Cell differentiation and tissue formation
		13 Cell function and morphology
		14 Ultrastructural morphology
		15 Molecular morphology
		16 Histochemistry
		17 Microscopic technology
7902	General physiology	1 Molecular and cellular physiology
		2 Biological membrane, channel, transporter and active transport
		3 Receptor and intracellular signal transduction
		4 Stimulation-secretion coupling
		5 Epithelial function
		6 Heredity, fertilization, development and differentiation
		7 Cellular proliferation and cell death
		8 Cellular motility, morphogenesis and intercellular interaction
		9 Microcirculation, peripheral circulation, circulation dynamics and regulation
		10 Ventilation mechanics, blood gas function and respiratory control
		11 Gastrointestinal motility, absorption and digestion
		12 Renal function, body fluids, and acid-base balance
		13 Blood coagulation and rheology
		14 Pathophysiology
		15 System physiology and physiome
		16 Comparative, developmental and genome physiology
		17 Muscular physiology

(Discipline: Basic medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7903	Environmental physiology (including physical medicine and nutritional physiology)	1 Environmental physiology
		2 Physical medicine
		3 Nutritional physiology
		4 Adaptive and associative physiology
		5 Biorhythm
		6 Growth, development, and aging
		7 Stress
		8 Space medicine
		9 Behavioral physiology
		10 Biological clock
		11 Hyperthermia physiology
		12 Feeding regulation
		13 Sleep and arousal
		14 Reproductive physiology
7904	General pharmacology	1 Kidney
		2 Smooth muscle and skeletal muscle
		3 Gastrointestinal
		4 Inflammation and immunity
		5 Bioactive substance
		6 Central nervous system and peripheral nerve
		7 Spinal cord and pain
		8 Receptor, channel, transport system, and signal transduction system
		9 Cardiovascular system and hematology
		10 Drug discovery and pharmacogenomics
		11 Drug therapy and toxicology
		12 Herbal medicine and pharmacology of natural products
7905	General medical chemistry	1 Biomolecular medicine
		2 Cellular biochemistry (cellular medical chemistry)
		3 Genomic biochemistry (genomic medical chemistry)
		4 Developmental medicine
		5 Regenerative medicine
		6 Aging medicine
		7 Higher order life sciences
		8 Intracellular signaling
7906	Pathological medical chemistry	1 Abnormal metabolism
		2 Molecular pathogenesis
		3 Molecular and gene diagnosis
		4 Molecular oncology
		5 Molecular pathogenesis of nutrition
7907	Human genetics	1 Medical genome science
		2 Molecular genetics
		3 Cytogenetics
		4 Genetic biochemistry
		5 Genetic epidemiology
		6 Genetic diagnostics
		7 Gene therapy
		8 Social genetics
		9 Epigenetics
7908	Human pathology	1 Digestive system and salivary gland
		2 Urogenital and endocrine organs
		3 Brain and nervous system
		4 Respiratory and mediastinal organs
		5 Cardiovascular system
		6 Bone, joint, muscle, skin and sense organs
		7 Blood
		8 Diagnostic pathology
		9 Diagnostic cytopathology
		10 Diagnostic molecular pathology
		11 Diagnostic immunopathology
		12 Environmental pathology
		13 Transplantation pathology

(Discipline: Basic medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7909	Experimental pathology	1 Cell injury
		2 Tumors
		3 Genetic disorders
		4 Environmental diseases
		5 Regenerative medicine
		6 Inflammation
		7 Hemodynamic disorders
		8 Immune diseases
		9 Infectious diseases
		10 Metabolic diseases
		11 Pediatric pathology
		12 Animal models
7910	Parasitology (including sanitary zoology)	1 Helminth
		2 Protozoa
		3 Arthropod vector
		4 Pathogenic animals
		5 International health
		6 Molecules and cells
		7 Development and genetics
		8 Epidemiology
		9 Diagnosis and treatment
		10 Prevention and control
7911	Bacteriology (including mycology)	1 Genomes and genetics
		2 Structure and physiology
		3 Classification
		4 Pathogenicity
		5 Toxins and effectors
		6 Drug resistance
		7 Epidemiology
		8 Diagnosis and treatment
		9 Prevention and control
7912	Virology	1 Molecules and structure
		2 Cells and replication
		3 Organisms and pathogenicity
		4 Epidemiology
		5 Diagnosis and treatment
		6 Prevention and control
		7 Prions
7913	Immunology	1 Cytokines
		2 Signal transduction
		3 Antibodies and complements
		4 Innate immunity
		5 Acquired immunity
		6 Mucosal immunity
		7 Immunological memory
		8 Immune tolerance and autoimmunity
		9 Immune surveillance and tumor immunology
		10 Immunodeficiency
		11 Allergy and immune-related disorder
		12 Infection immunity
		13 Inflammation
		14 Immunoregulation and transplantation immunology

Discipline: Boundary medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
8001	Medical sociology	1 Bioethics
		2 Medical, Dental and Pharmaceutical Education
		3 Medical history
		4 Health economics
		5 Medical behavioral science

(Discipline: Boundary medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
8002	Applied pharmacology	1 Clinical pharmacology
		2 Clinical trials and ethics
		3 Pharmaceutical therapeutics
		4 Adverse drug reaction and drug interaction
		5 Drug transport mechanism
		6 Pharmacogenomics
		7 Clinical isotope pharmacy
		8 Medical devices and pharmacy
		9 Drug metabolic enzyme and transporter
		10 Imaging
		11 Research using human tissue
		12 Drug dependence and drug sensitivity
		13 Genetic diagnosis and gene therapy
		14 Drug delivery
		15 Pharmacoepidemiology
8003	Laboratory medicine	1 Clinical laboratory medicine
		2 Clinical pathology
		3 Clinical chemistry
		4 Immunology and serology
		5 Clinical laboratory system
		6 Genetic testing
		7 Clinical microbiology
		8 Laboratory oncology
		9 Clinical hematology
		10 Physiological laboratory testing
8005	Medical Physics and Radiological Technology	1 Medical Physics
		2 Radiological Technology and Science
		3 Radiological Technology and Engineering
		4 Radiological Diagnostic Technology
		5 Radiological Therapeutic Technology
		6 Nuclear Medicine Physics
		7 Medical Imaging Physics and Engineering
		8 Medical Imaging Informatics
		9 Radiation Measurement Technology
		10 Particle Radiation Therapeutics
		11 Accelerator Engineering
		12 Radiation Protection Technology
8004	Pain science	1 Evaluation methods of pain
		2 Epidemiology of pain
		3 Analgesic
		4 Non-drug therapy
		5 Pain producing substance (PPS), Algesic substance
		6 Generating or exacerbating mechanism of pain
		7 Neural mechanism of pain
		8 Hyperalgesia
		9 Genetic factors of pain
		10 Development or aging factors of pain
		11 Gender difference in pain
		12 Pain withdrawal reflex
		13 Numbness, Hypesthesia
		14 Nociceptor
		15 Histopathic pain, Histotoxic pain
		16 Neuropathic pain, Neuralgia
		17 Psychological pain
		18 Itching, pruritus
		19 Epidemiology of itching, or pruritus
		20 Antipruritics
		21 Itch-producing substances
		22 Generating or exacerbating mechanism of pruritus
		23 Neural mechanism of pruritus
		24 Curettage behavior
		25 Hyperknesis
		26 Psychological itching
		27 Development or aging factors of itching

Discipline: Society medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
8101	Epidemiology and preventive medicine	1 Epidemiology
		2 Clinical epidemiology
		3 Clinical trial
		4 Environmental epidemiology
		5 Molecular genetic epidemiology
		6 Preventive medicine
		7 Medical examination
		8 Screening
		9 Clinical statistics
		10 Mass-screening
		11 Health management
		12 Health promotion
8102	Hygiene and public health	1 Molecular preventive medicine
		2 Molecular epidemiology
		3 Food sanitation
		4 Environmental health
		5 Occupational health
		6 Environmental toxicology
		7 Community health
		8 Community medicine
		9 Maternal and child health
		10 Adult health
		11 Elderly health
		12 Global Health
		13 Health administration
		14 Health policy
		15 Care and welfare
8103	Medical and hospital management	1 Hospital management
		2 Medical administration
		3 Medical informatics
		4 Quality of medical care
		5 Medical record management
		6 Risk management
		7 Nosocomial infection management
		8 Critical path
8104	Legal medicine	1 Forensics
		2 Forensic examination
		3 Alcohol research
		4 Forensic odontology
		5 DNA polymorphism
		6 Forensic pathology

Discipline: Clinical internal medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
8201	General internal medicine (including psychosomatic medicine)	1 Psychosomatic internal medicine
		2 Stress science
		3 Oriental medicine
		4 Alternative medicine
		5 Palliative medicine
		6 General medicine
		7 Primary care
		8 Geriatrics
8202	Gastroenterology	1 1 Upper gastroenterology (esophagus, stomach, duodenum)
		2 2 Lower gastroenterology (small intestine, colon)
		3 3 Hepatology
		4 4 Biliary-Pancreatology
		5 5 Digestive endoscopy
8203	Cardiovascular medicine	1 1 Clinical Cardiology
		2 2 Clinical Angiology
		3 3 Molecular Cardiology
		4 4 Molecular Angiology
8204	Respiratory organ internal medicine	1 1 Clinical respirology
		2 2 Molecular and cellular respirology
8205	Kidney internal medicine	1 1 Nephrology
		2 2 Hypertension
		3 3 Water and electrolyte metabolism
		4 4 Hemodialysis

(Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8206	Neurology	1	1 Molecular pathophysiology
		2	2 Neuroimmunology
			3 Clinical molecular neurogenetics
		3	4 Clinical neurophysiology
			5 Clinical neuromorphology
			6 Clinical neuropsychology
			7 Functional neuroimaging
8207	Metabolomics	1	1 Disturbances of energy and carbohydrate metabolism
		2	2 Metabolic syndrome
			3 Abnormal lipid metabolism
			4 Disorder of purine metabolism
			5 Abnormal bone and calcium metabolism
			6 Metabolic electrolyte abnormality
8208	Endocrinology	1	1 Endocrinology
		2	2 Reproductive endocrinology
8209	Hematology	1	1 Hematology
		2	2 Thrombosis/Hemostasis
			3 Transfusion medicine
			4 Hematology/Oncology
		3	5 Hematopoietic stem cell transplantation
			6 Hematology/Immunology
			7 Immune regulation
8210	Collagenous pathology/ Allergology		1
2		2 Rheumatology	
		3 Allergology	
		4 Clinical immunology	
		5 Inflammation	
8211	Infectious disease medicine	1	1 Infection diagnosis
		2	2 Infection therapy
		3	3 Infection prevention
		4	4 International infection science
		5	5 Infection epidemiology
		6	6 Opportunistic infection
8212	Pediatrics	1	1 Developmental pediatrics
		2	2 Growth and developmental medicine
			3 Pediatric metabolism/Nutrition
			4 Hereditary/Teratology
			5 Pediatric health
			6 Pediatric social medicine
		3	7 Pediatric neurology
			8 Pediatric endocrinology
			9 Pediatric hematology
			10 Pediatric oncology
		4	11 Pediatric immunology/Allergy/Connective tissue diseases
			12 Pediatric infectious disease
			13 Pediatric cardiology
			14 Pediatric respirology
			15 Pediatric nephrology/Urology
			16 Pediatric gastroenterology
8213	Embryonic/ Neonatal medicine	1	1 Prenatal diagnosis
		2	2 Fetal medicine
		3	3 Teratology
		4	4 Neonatal medicine
		5	5 Premature baby medicine
8214	Dermatology	1	1 Skin diagnostics
		2	2 Mechanisms of skin diseases
			3 Cutaneous physiology and biology
			4 Laser/photobiology
			5 Dermatologic oncology
		3	6 Pigment cell biology
			7 Cutaneous immunology and inflammation
			8 Infectious diseases
			9 Regenerative dermatology
			10

(Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8215	Psychiatric science	1	1 Psychopharmacology
		2	2 Clinical molecular genetics
			3 Psychophysiology
		3	4 Psychopathology
			5 Geriatric psychiatry
			6 Social psychiatry
			7 Child and adolescence psychiatry
		4	8 Forensic psychiatry
			9 Neuropsychology
			10 Liaison psychiatry
			11 Psychiatric rehabilitation
8216	Radiation science	1	1 Medical imaging (including diagnostic radiology)
		2	2 X-Ray/CT
			3 Ultrasonography
			4 Radiopharmaceuticals/Contrast medium
		3	5 Magnetic resonance imaging
			6 Radiation protection and safety management
			7 Medical imaging technology
			8 Nuclear medicine (including PET)
			9 Interventional radiology
			10 Angioplasty/Osteoplasty/Vascular embolization
			11 Radiofrequency ablation (RFA)/Stent treatment/Reserver treatment
		4	12 Hyperthermia
			13 Ultrasound therapy
			14 Radiation emergency medicine
			15 Medical radiation biology
			16 Therapeutic radiology
			17 Radiation oncology
			18 Radiotherapy physics
			19 Radiotherapy biology
			20 Particle beam therapy

Discipline: Clinical surgery

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8301	General surgery	1	1 General surgery
		2	2 Transplant surgery
			3 Artificial organs science
			4 Endoscopic surgery
			5 Robotic surgery
			6 Experimental surgery
		3	7 Endocrine surgery
			8 Breast surgery
			9 Surgical metabolism and nutrition
8302	Digestive surgery		1
2		2 Gastroduodenal surgery	
		3 Colorectal surgery	
3		4 Hepatic surgery	
		5 Surgery for spleen and portal vein	
		6 Biliary surgery	
		7 Pancreatic surgery	
8303	Cardiovascular surgery	1	1 Coronary surgery
		2	2 Heart valve surgery
			3 Surgery in cardiomyopathy
			4 Congenital cardiovascular surgery
		3	5 Aortic surgery
			6 Peripheral vascular surgery
			7 Phlebology
			8 Lymphology
8304	Respiratory surgery		1
2		2 Tracheal surgery	
		3 Mediastinal surgery	
		4 Pleural surgery	
		5 Chest wall surgery	

(Discipline: Clinical surgery)

Item Number	Research Field	Screening Sub-panel Number / Keyword
8305	Neurosurgery	1 Neurotrauma
		2 Cerebrovascular disorders
		3 Neuro-endovascular surgery
		4 Experimental neurosurgery
		2 5 Neuro-oncology
		6 Diagnostic neuroimaging
		7 Functional neurosurgery
		3 8 Pediatric neurosurgery
		9 Spinal cord/Spinal diseases
		10 Neurosurgical instruments
		11 Stereotactic radiosurgery
8306	Orthopaedic surgery	1 Spinal disorders
		2 Muscle/Nerve disorders
		3 Physical therapy and rehabilitation science
		4 Bone and soft tissue tumors
		2 5 Limb reconstruction surgery
		6 Pediatric orthopaedics
		7 Musculoskeletal traumatology
		8 Joint disorders
		9 Rheumatic diseases
		10 Bone and cartilage metabolism
		11 Sports medicine
8307	Anesthesiology	1 Anesthesiology
		2 Anesthesiology and Resuscitology
		2 3 Perioperative management
		3 4 Pain management
8308	Urology	1 Oncology
		2 Neurourology and Urodynamics
		3 Infectious diseases
		2 4 Regenerative medicine
		5 Regenerative medicine
		6 Teratology
		7 Adrenal surgery
		3 8 Kidney transplantation
		9 Andrology
8309	Obstetrics and gynecology	1 Obstetrics
		2 Reproductive medicine
		3 Gynecology
		2 4 Gynecologic oncology
		5 Menopause medicine
8310	Otorhinolaryngology	1 Otology
		2 Equilibrium Research
		3 Audiology
		4 Rhinology
		2 5 Allergology
		6 Skull Base Surgery
		7 Stomato-pharyngology
		3 8 Laryngology
		9 Broncho-esophagology
		10 Head and Neck Surgery
8311	Ophthalmology	1 Clinical research
		2 Epidemiology study
		3 Social medicine
		4 Ocular biochemistry and molecular biology
		5 Ocular cell biology
		2 6 Ophthalmic genetics
		7 Ocular histology
		8 Ocular pathology
		9 Ocular pharmacology
		10 Ocular physiology
		11 Ocular developmental and regenerative biology
		3 12 Ocular immunology
		13 Ocular microbiology/Infectious diseases
		14 Science orthoptic
		15 Optics
		16 Ophthalmic medical engineering

(Discipline: Clinical surgery)

Item Number	Research Field	Screening Sub-panel Number / Keyword
8312	Pediatric surgery	1 Pediatric digestive surgery
		2 Fetal surgery
		3 Pediatric urology
		4 Pediatric chest surgery
		5 Pediatric oncology
8313	Plastic surgery	1 Reconstructive surgery
		2 Wound healing science
		3 Microsurgery
		4 Tissue culture/Transplantation
		5 Regenerative medicine
8314	Emergency medicine	1 Intensive care medicine
		2 Trauma surgery
		3 Emergency resuscitation science
		4 Acute toxicology
		5 Disaster medicine

Discipline: Dentistry

Item Number	Research Field	Screening Sub-panel Number / Keyword
8401	Morphological basic dentistry	1 Oral anatomy (including histology/embryology)
		2 Oral pathology
		3 Oral bacteriology
8402	Functional basic dentistry	1 Oral physiology
		2 Oral biochemistry
		3 Dental pharmacology
8403	Pathobiological dentistry/ Dental radiology	1 Experimental oncology
		2 Immunity/Infection/Inflammation
		3 General dental radiology
		4 Oral and maxillofacial diagnostic radiology
8404	Conservative dentistry	1 Operative dentistry
		2 Endodontology
8405	Prosthodontics/ Dental materials science and engineering	1 General prosthodontics
		2 Removable denture prosthodontics
		3 Fixed partial denture prosthodontics
		4 Oral and maxillofacial prosthetics
		5 Stomatognathic function
		2 6 Dental engineering
		7 Dental materials science
8406	Dental engineering/ Regenerative dentistry	1 Biomaterials science
		2 Regenerative dentistry
		3 Oral implantology
8407	Surgical dentistry	1 1 Oral and maxillofacial surgery
		2 2 Clinical oncology
		3 Dental anesthesiology
		4 Laboratory medicine
		5 Oral maxillofacial reconstructive surgery
8408	Orthodontics/ Pediatric dentistry	1 1 Orthodontics
		2 Pediatric dentistry
		2 3 Pediatric oral health science
		4 Stomatognathic function and mechanics
8409	Periodontology	1 Pathogenesis and diagnosis
		2 Periodontics
		3 Periodontal tissue engineering
		4 Preventive periodontology
8410	Social dentistry	1 Dental hygiene (including public hygiene/nutrition)
		2 Preventive dentistry
		3 Oral health administration and management
		4 Forensic odontology
		2 5 Gerodontology
		6 Psychosomatic medicine dentistry
		7 Dental education

Discipline: Nursing

Item Number	Research Field	Screening Sub-panel Number / Keyword
8501	Fundamental nursing	1 Nursing philosophy
		2 Nursing ethics
		3 Nursing art
		4 History of nursing
		2 5 Nursing education
		6 Nursing management
		3 7 Nursing policy/Administration
		8 Disaster nursing
8502	Clinical nursing	1 Critical care/Emergency nursing
		2 Perioperative nursing
		3 Adult nursing (chronic)
		4 Rehabilitation nursing
		2 5 Terminal care
		6 Oncology nursing
8503	Lifelong developmental nursing	1 Family health nursing
		2 Maternal/Women's health nursing
		3 Midwifery
		2 4 Child health nursing
8504	Gerontological nursing	1 Gerontological nursing
		2 Rehabilitation nursing
		3 Psychiatric/Mental health nursing
		4 Home care nursing
		2 5 Visiting nursing
		6 Family health nursing
8505	Community health nursing	1 Community health nursing
		2 Occupational and environmental health nursing
		2 3 Public health nursing
		4 School nursing