

1<sup>st</sup> Edition 2020

# IRC-SPRINT

**Terms and Conditions**

**Participating organisations:**



**Irish Research Council**

*The mission of the Irish Research Council is to enable and sustain a vibrant research community in Ireland by supporting excellent researchers across all disciplines and career stages.*

Email: [ircsprint@research.ie](mailto:ircsprint@research.ie)

Website: <http://research.ie/about-us>



**The São Paulo Research Foundation,  
FAPESP**

*FAPESP is a public foundation, funded by the taxpayer in the State of São Paulo, with the mission to support research projects in higher education and research institutions, in all fields of knowledge.*

Email: [sprint@fapesp.br](mailto:sprint@fapesp.br)

Website: <http://www.fapesp.br/en/about>

## **Terms & Conditions for proposals from Ireland-based researchers to the Irish Research Council under SPRINT 1<sup>st</sup> Edition 2020**

### **1. Background**

FAPESP and the Irish Research Council signed a Cooperation Agreement for Research on 1 February 2019. This agreement aims to facilitate cooperation between researchers in Ireland and in the State of São Paulo, Brazil, through the funding of joint research projects.

Under the above Agreement, as an action to promote such collaboration, FAPESP and the Irish Research Council have published this Call for Proposals under the Terms and Conditions of the SPRINT 1st Edition 2020 ([www.fapesp.br/sprint/call12020](http://www.fapesp.br/sprint/call12020)) and hereinafter set forth.

The longer-term goal of the cooperation is to develop and to enhance lasting professional networks of researchers. Successful applicants are encouraged to develop their collaboration post-IRC-SPRINT by seeking larger-scale funding from international sources such as Horizon 2020 or Horizon Europe.

**An application form submitted by an Ireland-based researcher to the Irish Research Council must be matched by an application form submitted by a research partner based in the State of São Paulo. Otherwise, it will not be considered.**

### **2. São Paulo Researchers in International Collaboration (SPRINT)**

SPRINT is a program designed to encourage and to promote the advancement of research through the engagement of researchers affiliated to institutions in São Paulo State with partners abroad. It provides seed funding for cross-border research collaborations with the clear expectation that the next step will be for the researchers from São Paulo to present a proposal for one of FAPESP's regular funding lines in order to assure the continuity of the research project under SPRINT and hence consolidate the partnership.

The Irish Research Council is pleased to partner with FAPESP on SPRINT in order to generate new opportunities for Ireland-based researchers to collaborate internationally, in line with the [International Engagement Strategy 2018-2021](#).

### **3. Finance**

An IRC-SPRINT award will involve researcher(s) based in Ireland travelling to the State of São Paulo and researcher(s) based in the State of São Paulo travelling to Ireland.

The Irish Research Council will provide funding of up to €8,000 (eight thousand euro) per proposal per year for the duration of the grant to cover the **research-related mobility expenses of the Ireland-based Principal Investigator and team members**, including **funds for travel to the State of São Paulo** (economy-class tickets only), **data collection**, **archival access**, and **expenses to run workshops and conferences in Ireland** for the benefit of the collaboration. Overnight subsistence rates for researcher(s) based in Ireland travelling to any city in the State of São Paulo must be calculated in accordance with [Irish civil service rates](#).<sup>1</sup>

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<sup>1</sup> FAPESP will provide funding of up to the equivalent of €8,000 (eight thousand euro) per proposal per year for the duration of the grant to cover research-related mobility expenses, including funds for travel to Ireland (economy-class tickets only) and health insurance for the State of São Paulo researcher(s) only. Researchers based in the State of São Paulo can draw funds from their current FAPESP award (see item 5. Eligibility) to cover costs such as data collection, archival access, and expenses to run workshops and conferences.

**A maximum of 10 joint-awards will be made under the IRC-SPRINT 2020 Call.** Awards will have a minimum duration of 12 months and a maximum duration of 24 months.

Institutions from São Paulo and from Ireland are expected to sign an intellectual property agreement. Activities may only commence after the agreement has been approved and signed by both institutions. Payment will be made by IRC (to Irish partners) and FAPESP (to São Paulo partners) once a signed copy of this agreement has been received.

#### 4. Disciplinary areas concerned

The Council and FAPESP will fund applications across all fields of knowledge. A balance between STEM and AHSS awards will be sought by both agencies.

#### 5. Eligibility

##### Candidates

- An eligible Ireland-based applicant must be a Principal Investigator who already holds a contract of sufficient duration with an eligible institution to carry out the proposed research from the project start date until project end date. See the list of [eligible Higher Education Institutions and Research Performing Organisations in Ireland](#). The Ireland-based Principal Investigator must have been awarded their doctoral degree before the application deadline.
- Applicants in the State of São Paulo should note the requirements of the FAPESP call (<http://www.fapesp.br/13033>):
  - 3. *Eligibility to submit proposals under this Call*
    - *FAPESP considers eligible to submit a proposal in this Call:*  
*3.1 Researchers Responsible for current FAPESP research grants, in the form of the following Research Grants: Regular (except mobility projects), Thematic Project, or Young Researchers in Emerging Centers, Research, Innovation and Dissemination Centers (CEPID), Improvement Program Public Education, Public Policy Research Program and Partnership Research Support Program for Technological Innovation (PITE). Principal Investigators of Thematic Projects, CEPIDs, and existing PITEs are also eligible for proposal submission.*
  - 4. *Fundable eligible applicants*
    - *4.2. For the exchange activities within the scope of this Call, the team members of the related ongoing research award described above in item 3 are eligible, when previously defined in the ongoing research project as:*
      - *a. Principal or Co-Principal Investigators;*
      - *b. Associated Researchers affiliated to Higher Education and Research Institutions in the State of São Paulo.*
        - (i) Associated Researchers, who are Post-doctoral fellows, must have an ongoing FAPESP fellowship during the planned exchange mission.*
- Researchers in the State of São Paulo supported by FAPESP can be found on Research Supported by [FAPESP \(bv-cdi\)](#). Please refer to **Guide to bv-cdi FAPESP** on our website.

- The scheme is only open to researchers who are ordinarily resident in Ireland or the State of São Paulo. There are no nationality or citizenship requirements.

### **Eligible Activities**

- Mobility of researchers
- Research planning
- International research workshops
- Activities associated with collaborative data collection or fieldwork

### **Note:**

Proposals must aim to respect the principle of reciprocity insofar as the involvement of, and benefit to, researchers based in both locations must be roughly equivalent to one another. For the purpose of offering training and career development opportunities, early career researchers based in Ireland or in the State of São Paulo can be supported by the grant as a team member; the principle of reciprocity must also be respected in this instance.

## **6. Timeline**

<b>Call Announce by FAPESP and the Council</b>	28 January 2020
<b>Closing date for submission of proposals</b>	28 April 2020
<b>Successful proposals notified after</b>	31 July 2020

## **7. Application procedure**

Applications from Ireland-based partner(s) should be submitted to the Irish Research Council; applications from São Paulo-based partner(s) should be submitted to FAPESP. São Paulo-based partner(s) should visit <http://www.fapesp.br/8602> for information about the correct submission procedure for their application.

Applicants from the Irish Research Council must submit the following via the [Online Application System \(WizeHive\)](#).

Ireland-based Principal Investigators will need to create a profile and complete an online application. Once submitted, applications will be assigned to the nominated individual in the Research Office for Institutional Endorsement.

**State of São Paulo based researchers must contact FAPESP for guidance on the submission of application through [SAGe](#).**

The Application Form will require:

- a. a description of the project written for a general research audience. This description should be no longer than 1,000 words, excluding references, and cover the following headings, where relevant:
  - i. The research idea, its aims and objectives
  - ii. Proposed methodology
  - iii. Research plan including a schedule for task completion
  - iv. Reason for collaboration and complementary team requirements

- v. Facilities and equipment available for the project where appropriate (both in Ireland and São Paulo)
  - vi. Key research outputs of the lead applicant both in Ireland and São Paulo (five maximum)
  - vii. Rationale for application, indicating why funds are not available from other funding streams (e.g. Research Centre/institutional resources)
- b. Budgetary breakdown
  - c. a CV (one page maximum) for each of the team members (in both Ireland and São Paulo) referenced in the application.

Submissions to the Council must be sent exclusively through the Online Application System, according to the instructions of [Guide for Applicants available at the Irish Research Council website](#), and will not be accepted by any other means.

**Please note that applications must be received by the Council by 4pm (Irish time) on 28 April 2020. Applications received after this time will not be considered. Results will be announced after 31 July 2020.**

## 8. Sex/gender dimension

The Council supports gender equality in the research and innovation system. The Council's Gender Strategy & Action Plan 2013–2020 is available [here](#). All applicants are required to give careful consideration to whether there is a potential sex or gender dimension that may arise in the course of their research.

Where the applicant is involved in the organisation of a workshop or other event that is connected with their research project, due regard should be given to gender balance within any such panel(s).

Where an application involves a research team, gender balance should also be sought.

## 9. Assessment Process

Each funding agency will select the proposals according to its own procedures. Only the proposals selected by both Agencies will be funded.

### Irish Research Council

Ireland-based researcher(s) **must** submit their application to the Irish Research Council and will be evaluated in accordance with the Council's assessment process outlined below:

1. All applications will be assessed solely on the basis of the material provided to the Council at the time of submission.
2. Applications are first reviewed by the Council for eligibility and adherence to the IRC-SPRINT Terms and Conditions.
3. Each stream (AHSS and STEM) is then assessed independently on a competitive basis.
4. Applications are sent for evaluation to an Assessment Board. Each application is assessed by at least two independent reviewers. Each assessor submits their evaluation, and the applications are ranked within each of the independent funding streams.
5. The top-ranked applications are then shared with FAPESP so they can be matched with their counterpart application submitted to FAPESP.
6. Awards will be made on the basis of excellence agreed by both Agencies.

## **FAPESP**

State of São Paulo based researcher(s) **must** submit their application to FAPESP and will be evaluated in accordance with FAPESP's assessment process<sup>2</sup>.

The results will be announced on the FAPESP ([www.fapesp.br](http://www.fapesp.br)) and the Irish Research Council ([www.research.ie](http://www.research.ie)) websites and by means of email communication with applicants.

### **10. Contract for selected projects by the Council**

Selected proposals will be subject to the conditions set forth in the Memorandum of Understanding signed between FAPESP and the Irish Research Council and to the conditions outlined in this Terms and Conditions and guidelines for SPRINT Call 1/2020.

### **11. Grant Cancellation**

The IRC and FAPESP reserve the right to suspend or terminate the award and/or require reimbursement by the Irish HEI/RPO, as the recipient of the award fund, of some or all payments as have already been made to the awardee, if in the opinion of the IRC or FAPESP there has been a material breach of the Terms and Conditions as outlined in this document.

### **12. Progress Report (Under Development)**

- Projects of over 12 months' duration are required to submit a Progress Report outlining the progress of the project.
- The Progress Report template for the IRC-SPRINT scheme, available for download at <http://research.ie/funding/ircsprint/?f=principal-investigator-led>, must be completed by the Ireland-based partner(s) at the end of the first year of the award period.
- The expenditure section must be signed and stamped by the Irish HEI/RPO's finance office.
- Awardees are required to submit an electronic copy of their Progress Report to the Council at [ircsprint@research.ie](mailto:ircsprint@research.ie).

### **13. Final Report (Under Development)**

- The Final Report template for the IRC-SPRINT scheme, available for download at <http://research.ie/funding/ircsprint/?f=principal-investigator-led> must be completed by the Ireland-based partner(s) at the end of the award period.
- The expenditure section must be signed and stamped by the Irish HEI/RPO's finance office.
- Awardees are required to submit one electronic copy of their final report to the Council at [ircsprint@research.ie](mailto:ircsprint@research.ie).

### **14. Intellectual Property**

IRC-SPRINT Program participants agree that, when actions under this Agreement result in products of commercial value and intellectual property rights, they shall be governed by applicable national laws and international conventions in force. Participants should also observe the Intellectual Property Policy of the institution(s) responsible for funding their team.

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<sup>2</sup> For each major area of knowledge, the FAPESP Board of Scientific Directors maintains a committee of recognized experts who are responsible for coordinating the process of analysing the merits of the grant proposals submitted to FAPESP. Funding requests are forwarded to the respective Area Panels members, who are responsible for selecting appropriate ad hoc consultants to issue detailed opinions on the merits of a given proposal. In the case of multidisciplinary projects, more than one committee can be heard.

In the case of joint ownership of Intellectual Property, the parties concerned shall, in good faith, establish a co-ownership agreement to establish the conditions for the exercise of such joint ownership, taking into account the contributions of the parties.

## **15. Expected outcomes**

As a result of each project supported under the IRC-SPRINT Program, it is expected that fruitful partnerships will be developed and consolidated, achieving significant results such as:

- a. Development of joint proposals for larger-scale funding applications such as Horizon 2020 or Horizon Europe for the Ireland-based researcher and FAPESP for the State of São Paulo based researcher;
- b. Research outputs;
- c. Impact and Dissemination of the research results both in the State of São Paulo and Ireland;
- d. Strengthening of existing partnerships between the research community both in Ireland and the State of São Paulo;
- e. Research validation through the construction of an excellent international collaborative network;
- f. Promotion of innovative means of collaboration between Irish and State of São Paulo research centres of excellence;
- g. Exchange of institutional experience.

## **16. Extensions to current awards**

It is not possible for Ireland-based partner(s) to apply for a costed extension to an IRC-SPRINT award. Instead, they should reapply for a new award, while cognisant of the criteria for selection detailed above.

Ireland-based partner(s) who are current holders of an IRC-SPRINT award and who wish to apply for a no-cost extension may contact the Council with such a request.

## **17. Acknowledgement of Council Funding**

All publicity, including interviews, email signatures, letterheads, office signs, public lectures, publications, monographs, print materials, online materials, press releases, television and radio advertisements, websites, film, and video/audio recordings associated with or arising from the research undertaken by awardees must contain acknowledgement of funding received from the Council. Where possible, the Council's logo should be included in any such acknowledgement.

Awardees are expected to adhere to the Council's policy relating to the acknowledgement of its funding at all times. The policy is available [here](#).

## **18. Further information**

All questions from Ireland-based researchers related to this Call for Proposals must be directed to the Research Office in the Irish Higher Education Institution.

All questions from State of São Paulo-based researchers related to this Call for Proposals must be directed to [sprint@fapesp.br](mailto:sprint@fapesp.br).



## **Annex I**

### **Research categorisation**

Applicants are required to indicate the primary area, discipline and other research area under which their proposed research programme fits.

If the proposed research is interdisciplinary, applicants should indicate this by initially categorising their research via the drop-down menus provided and then by using the 'second categorisation – if interdisciplinary' free text box to indicate a second categorisation. For the first categorisation, please select the primary area, discipline and other research area which the research is most closely aligned with. The second categorisation should also be provided on the basis of the primary areas, disciplines and other research areas provided below.

#### **Primary areas**

Applicants are required to select a primary area from the following defined list:

- Biological Sciences A
- Biological Sciences B
- Chemistry
- Computer Science
- Earth and Environmental Sciences
- Engineering
- Mathematics
- Physics
- Study of the Human Past
- Cultures and Cultural Production
- Individuals, Institutions, Markets, Values, Behaviour the Mind and Environment

#### **Disciplines**

Under each primary area, there is a defined list of disciplines to select from. These are listed in the tables that follow. Applicants should choose the discipline that most closely matches their proposed research.

#### **Other research areas**

An indicative list of other research areas is also provided under the primary areas and disciplines to further categorise the research and aid in the selection of assessors.

Primary Area: <b>Biological Sciences A</b>	
<i>Disciplines</i>	<i>Other Research Areas</i>
Agricultural Biotechnology	including but not limited to: Agricultural Biotechnology Diagnostics (incl. Biosensors); Agricultural Marine Biotechnology; Agricultural Molecular Engineering of Nucleic Acids and Proteins; Genetically Modified Technology; Livestock Cloning; Marker Assisted Selection; Biomass Feedstock Production Technologies; Biopharming.
Biology (Theoretical, Mathematical, Thermal, Cryobiology, Biological Rhythm)	including but not limited to: Theoretical Biology; Mathematical Biology; Thermal Biology; Cryobiology; Biological Rhythm.
Environmental Biotechnology	including but not limited to: Biodiscovery; Biological Control; Bioremediation; Environmental Biotechnology Diagnostics (incl. Biosensors); Environmental Marine Biotechnology; Environmental Molecular Engineering of Nucleic Acids and Proteins.
Evolutionary Biology	including but not limited to: Animal Systematics and Taxonomy; Biogeography and Phytogeography; Biological Adaptation; Ethology and Socio-biology; Evolution of Developmental Systems; Evolutionary Impacts of Climate Change; Host-Parasite Interactions; Life Histories; Phylogeny and Comparative Analysis; Plant Systematics and Taxonomy; Speciation and Extinction.
Marine Biology, Freshwater Biology	including but not limited to: Marine Biology, Freshwater Biology.
Microbiology, Mycology and Virology	including but not limited to: Bacteriology; Infectious Agents; Microbial Ecology; Virology; Mycology.
Microbial Genetics	including but not limited to: Microbial Genetics.
Plant Sciences, Botany	including but not limited to: Phycology (incl. Marine Grasses); Plant Cell and Molecular Biology; Plant Developmental and Reproductive Biology; Plant Pathology; Plant Physiology; Botany.
Zoology, Ornithology, Entomology, Behavioural Sciences Biology	including but not limited to: Animal Behaviour; Animal Cell and Molecular Biology; Animal Developmental and Reproductive Biology; Animal Immunology; Animal Neurobiology; Animal Physiological Ecology; Animal Structure and Function; Invertebrate Biology; Vertebrate Biology.

Primary Area: <b>Biological Sciences B</b>	
<i>Discipline</i>	<i>Other Research Areas</i>
Biochemical Research Methods	including but not limited to: Biochemical Research Methods.
Biochemistry and Molecular Biology	including but not limited to: Analytical Biochemistry; Bioinformatics (Bioinformatics Software to be Computer Science); Enzymes; Protein Trafficking; Proteomics and Intermolecular Interactions; Receptors and Membrane Biology; Signal Transduction; Structural Biology (incl. Macromolecular Modelling); Synthetic Biology; Systems Biology.
Cell Biology	including but not limited to: Cell Development, Proliferation and Death; Cell Metabolism; Cell Neurochemistry; Cellular Interactions (incl. Adhesion, Matrix, Cell Wall).
Developmental Biology	including but not limited to: Developmental Biology.
Genetics and Heredity	including but not limited to: Anthropological Genetics; Cell and Nuclear Division; Developmental Genetics; Epigenetics (incl. Genome Methylation and Epigenomics); Gene Expression (incl. Microarray and other genome-wide approaches); Genetic Immunology; Genome Structure and Regulation; Genomics; Molecular Evolution; Neurogenetics; Population, Ecological and Evolutionary Genetics; Quantitative Genetics (incl. Disease and Trait Mapping Genetics).
Industrial Biotechnology	including but not limited to: Bio catalysis and Enzyme Technology; Bioprocessing, Bioproduction and Bioproducts; Fermentation; Industrial Biotechnology Diagnostics; Industrial Microbiology (incl. Bio feedstocks); Industrial Molecular Engineering of Nucleic Acids and Proteins.
Medical Biotechnology	including but not limited to: Gene and Molecular Therapy; Medical Biotechnology Diagnostics; Medical Molecular Engineering of Nucleic Acids and Proteins; Regenerative Medicine (incl. Stem Cells and Tissue Engineering).
Reproductive Biology	including but not limited to: Reproductive Biology.

Primary Area: <b>Chemistry</b>	
<i>Discipline</i>	<i>Other Research Areas</i>
Analytical Chemistry	including but not limited to: Analytical Spectrometry; Electro analytical Chemistry; Flow Analysis; Immunological and Bioassay Methods; Instrumental Methods; Quality Assurance, Chemo metrics, Traceability and Metrological Chemistry; Sensor Technology; Separation Science.

Colloid and Nanochemistry	including but not limited to: Colloid and Surface Chemistry; Nanochemistry; Molecular and Organic Electronics; Nanotoxicology (chemical aspects).
Electrochemistry	including but not limited to: Dry Cells; Batteries; Fuel cells; Corrosion metals; Electrolysis.
Inorganic, Organometallic and Nuclear Chemistry	including but not limited to: Bioinorganic Chemistry; f-Block Chemistry; Inorganic Green Chemistry; Main Group Metal Chemistry; Non-metal Chemistry; Solid State Chemistry; Transition Metal Chemistry; Inorganic Chemistry; Organometallic Chemistry, Supramolecular Chemistry (inorganic and organometallic aspects); Nuclear Chemistry.
Macromolecular and Materials Chemistry	including but not limited to: Chemical Characterisation of Materials; Supramolecular Chemistry (materials chemistry aspects); Optical Properties of Materials; Physical Chemistry of Materials; Polymerisation Mechanisms; Synthesis of Materials; Theory and Design of Materials; Molecular and Organic Electronics.
Medicinal and Biomolecular Chemistry	including but not limited to: Biologically Active Molecules; Biomolecular Modelling and Design; Characterisation of Biological Macromolecules; Cheminformatics and Quantitative Structure-Activity Relationships; Molecular Medicine; Proteins and Peptides.
Organic Chemistry	including but not limited to: Free Radical Chemistry; Natural Products Chemistry; Organic Chemical Synthesis; Organic Green Chemistry; Physical Organic Chemistry.
Physical Chemistry	including but not limited to: Catalysis and Mechanisms of Reactions; Chemical Thermodynamics and Energetics; Solution Chemistry; Structural Chemistry and Spectroscopy; Transport Properties and Non-equilibrium Processes.
Theoretical and Computational Chemistry	including but not limited to: Quantum Chemistry; Radiation and Matter; Reaction Kinetics and Dynamics; Statistical Mechanics in Chemistry.

Primary Area: <b>Computer Science</b>	
<i>Discipline</i>	<i>Other Research Areas</i>
Artificial Intelligence and Image Processing	including but not limited to: Adaptive Agents and Intelligent Robotics; Artificial Life; Computer Graphics; Computer Vision; Expert Systems, Image Processing; Natural Language Processing; Neural, Evolutionary and Fuzzy Computation; Pattern Recognition and Data Mining; Simulation and Modelling; Virtual Reality and Related Simulation.
Computation Theory and Mathematics	including but not limited to: Analysis of Algorithms and Complexity; Applied Discrete Mathematics; Computational Logic and Formal Languages; Mathematical Software; Numerical Computation.
Computer Software	including but not limited to: Bioinformatics Software; Computer System Architecture; Computer System Security; Concurrent Programming; Multimedia Programming; Open Software; Operating Systems; Programming Languages; Software Engineering.

Data Format	including but not limited to: Coding and Information Theory; Data Encryption; Data Structures; Markup Languages.
Distributed Computing	including but not limited to: Distributed and Grid Systems; Mobile Technologies; Networking and Communications; Ubiquitous Computing; Web Technologies.
Information Systems	including but not limited to: Computer-Human Interaction; Conceptual Modelling; Database Management; Decision Support and Group Support Systems; Global Information Systems; Information Engineering and Theory; Information Systems Development Methodologies; Information Systems Management; Information Systems Organisation; Information Systems Theory; Interorganisational Information Systems and Web Services.

Primary Area: <b>Earth and Environmental Sciences</b>	
<i>Discipline</i>	<i>Other Research Areas</i>
Biodiversity Conservation	including but not limited to: Conservation and Biodiversity.
Ecology	including but not limited to: Behavioural Ecology; Community Ecology; Ecological Physiology; Freshwater Ecology; Marine and Estuarine Ecology (incl. Marine Ichthyology); Paleocology; Population Ecology; Terrestrial Ecology. Ecological Impacts of Climate Change; Ecosystem Function; Invasive Species Ecology.
Environmental Sciences	including but not limited to: Environmental Impact Assessment; Environmental Management; Environmental Monitoring; Environmental Rehabilitation; Natural Resource Management; Wildlife and Habitat Management.
Geochemistry	including but not limited to: Exploration Geochemistry; Inorganic Geochemistry; Isotope Geochemistry; Organic Geochemistry.
Geophysics	Electrical and Electromagnetic Methods in Geophysics; Geodynamics; Geophysical Fluid Dynamics; Geothermics and Radiometrics; Gravimetrics; Magnetism and Palaeomagnetism; Seismology and Seismic Exploration.
Geology	including but not limited to: Basin Analysis; Extraterrestrial Geology; Geochronology; Igneous and Metamorphic Petrology; Marine Geoscience; Ore Deposit Petrology; Petroleum and Coal Geology; Sedimentology; Stratigraphy (incl. Biostratigraphy and Sequence Stratigraphy); Structural Geology; Tectonics, Volcanology.
Meteorology and Atmospheric Sciences	including but not limited to: Atmospheric Aerosols; Atmospheric Dynamics; Atmospheric Radiation; Climate Change Processes; Climatology (excl. Climate Change Processes); Cloud Physics; Meteorology; Tropospheric and Stratospheric Physics, Atmospheric Chemistry.
Mineralogy	including but not limited to: Mineralogy and Crystallography.
Oceanography, Hydrology, Water Resources	including but not limited to: Biological Oceanography; Chemical Oceanography; Physical Oceanography, Hydrology: Surfacewater Hydrology, Water Resources.
Palaeontology	including but not limited to: Palaeontology; Palynology.

Physical Geography	including but not limited to: Geomorphology and Regolith and Landscape Evolution; Glaciology; Hydrogeology; Natural Hazards; Palaeoclimatology; Quaternary Environments; Surface Processes.
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Primary Area: <b>Engineering</b>	
<i>Discipline</i>	<i>Other Research Areas</i>
Chemical Engineering	including but not limited to: Chemical engineering (plants, products); Chemical Process Engineering.
Civil Engineering	including but not limited to: Civil engineering; Architecture engineering; Construction Engineering, Municipal and Structural Engineering; Transport Engineering; Geotechnics.
Electrical Engineering, Electronic engineering, Information Engineering	including but not limited to: Electrical and Electronic Engineering; Robotics and Automatic Control; Automation and Control Systems; Communication Engineering and Systems; Telecommunications; Computer Hardware and Architecture;
Environmental Engineering	including, but not limited to: Environmental and Geological Engineering; Petroleum Engineering (fuel, oils); Energy and Fuels; Remote Sensing; Mining and Mineral Processing; Marine Engineering, Sea Vessels; Ocean Engineering.
Food and Beverage Engineering	including but not limited to: Food Engineering; Beverage Engineering.
Materials Engineering	including but limited to: Materials Engineering; Ceramics; Coating and Films; Composites (including laminates, reinforced plastics, cermets, combined natural and synthetic fibre fabrics; filled composites); Paper and Wood; Textiles (including synthetic dyes, colours and fibres); Nanoscale Materials (engineering aspects only).
Mechanical Engineering	including but not limited to: Mechanical Engineering; Applied Mechanics; Thermodynamics; Aerospace Engineering; Nuclear-related Engineering; (Nuclear Physics to be Physics); Audio Engineering, Reliability Analysis.
Medical and Biomedical Engineering	including but not limited to: Medical Engineering; Medical Laboratory Technology (including laboratory samples analysis; diagnostic technologies).

Primary Area: <b>Mathematics</b>	
<i>Disciplines</i>	<i>Other Research Areas</i>
Applied Mathematics	including but not limited to: Approximation Theory and Asymptotic Methods; Biological Mathematics; Calculus of Variations, Systems Theory and Control Theory; Dynamical Systems in Applications; Financial Mathematics; Operations Research; Theoretical and Applied Mechanics; Numerical Analysis; Numerical Solution of Differential and Integral Equations; Optimisation.

Pure Mathematics	including, but not limited to: Algebraic and Differential Geometry; Category Theory, K Theory, Homological Algebra; Combinatorics and Discrete Mathematics; Group Theory and Generalisations; Lie Groups, Harmonic and Fourier Analysis; Mathematical Logic, Set Theory, Lattices and Universal Algebra; Operator Algebras and Functional Analysis; Ordinary Differential Equations; Difference Equations and Dynamical Systems; Partial Differential Equations; Real and Complex Functions (incl. Several Variables); Topology.
Statistics and Probability	including but not limited to: Applied Statistics; Biostatistics; Forensic Statistics; Probability Theory; Statistical Theory; Stochastic Analysis and Modelling.

Primary Area: <b>Physics</b>	
Disciplines	Other Research Areas
Acoustics	including but not limited to: Acoustics and Acoustical Devices; Waves.
Astronomy and Space Science	including but not limited to: Astrobiology; Astronomical and Space Instrumentation; Cosmology and Extragalactic Astronomy; Galactic Astronomy; General Relativity and Gravitational Waves; High Energy Astrophysics; Cosmic Rays; Mesospheric, Ionospheric and Magnetospheric Physics; Planetary Science; Space and Solar Physics; Stellar Astronomy and Planetary Systems.
Atomic, Molecular and Chemical Physics	including but not limited to: Magnetic Resonances; Moessbauer effect; Atomic and Molecular Physics; Chemical Physics.
Biophysics	including but not limited to: Biological Physics; Medical Physics.
Condensed Matter Physics	including but not limited to: Condensed Matter Characterisation Technique Development; Condensed Matter Imaging; Condensed Matter Modelling and Density Functional Theory; Electronic and Magnetic Properties of Condensed Matter; Superconductivity; Soft Condensed Matter; Surfaces and Structural Properties of Condensed Matter.
Fluids and Plasma Physics	including but not limited to: Surface Physics; Plasma Physics; Fusion Plasmas; Electrical Discharges; Fluid Physics.
Nuclear Physics	including but not limited to: Nuclear Physics.
Optics	including but not limited to: Laser Optics; Quantum Optics; Classical and Physical Optics; Lasers and Quantum Electronics; Nonlinear Optics and Spectroscopy; Photonics, Optoelectronics and Optical Communications.
Particles and Fields Physics	including but not limited to: Particle Physics; Degenerate Quantum Gases and Atom Optics; Field Theory and String Theory.

Theoretical Physics	including but not limited to: Mathematical Aspects of Classical Mechanics, Quantum Mechanics and Quantum Information Theory; Mathematical Aspects of General Relativity; Mathematical Aspects of Quantum and Conformal Field Theory, Quantum Gravity and String Theory; Statistical Mechanics, Physical Combinatorics and Mathematical Aspects of Condensed Matter; Electrostatics and Electrodynamics; Thermodynamics and Statistical Physics.
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**Primary Area: Study of the Human Past**

Disciplines	Other Research Areas
Archaeology Celtic Studies History	including but not limited to: Archaeology, Archaeometry, Landscape Archaeology Prehistory and Protohistory Ancient History Medieval History Early Modern History Modern and Contemporary History Colonial and Post-colonial History, Global and Transnational History, Entangled Histories Social and Economic History Sex/Gender History History of Ideas, Intellectual History, History of Sciences and Techniques Cultural History, History of Collective Identities and Memories Historiography, Theory and Methods of History.

**Primary Area: Cultures and Cultural production**

Disciplines	Other Research Areas
Classics Cultural Studies Film Studies Folklore Studies French German Irish Language Studies Italian Languages Literature Musicology Philosophy Spanish Theatre Studies	including but not limited to: Classics, Ancient Greek and Latin literature and Art History of Literature Library and Information Studies Literary Theory and Comparative Literature, Literary Styles Textual Philology, Palaeography and Epigraphy Visual Arts, Performing Arts, Design Philosophy, History of Philosophy Philosophy of Mind, Epistemology and Logic Museums and Exhibitions Music and Musicology, History of Music History of Art and Architecture Cultural Studies, Cultural Diversity Cultural Heritage, Cultural Memory.



**Primary Area: Individuals, Institutions, markets, values, behaviour the mind and environment**

Disciplines	Other Research Areas
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Anthropology  
 Business & Management  
 Economics  
 Education  
 Environmental Studies  
 Geography  
 Law  
 Linguistics,  
 Media  
 Politics  
 Psychology  
 Sociology  
 Theology  
 Equality Studies

including but not limited to:  
 Macroeconomics,  
 Development, Economic Growth,  
 Microeconomics, Behavioural Economics  
 Marketing  
 Political Economy, Institutional Economics, Law and Economics  
 Econometrics, Statistical Methods,  
 Financial Markets, Asset Prices, International Finance,  
 Banking, Corporate Finance, Accounting, Competitiveness,  
 Innovation, Research and Development, Organization Studies:  
 Theory & Strategy, Industrial Organization, Labour Economics,  
 Income Distribution and Poverty  
 Public Economics, International Trade, History of Economic  
 Thought and Quantitative Economic History, Social Structure,  
 Inequalities, Social Mobility, Interethnic Relations, Social Policies,  
 Work and Welfare, Kinship, Cultural Dimensions of Classification  
 and Cognition, Identity, Sex/gender, Myth, Ritual, Symbolic  
 Representations, Religious Studies, Democratization, Social  
 Movements, Violence, Conflict and Conflict Resolution  
 Political Systems and Institutions, Governance  
 Legal Studies, Constitutions, Comparative Law, Human Rights  
 Global and Transnational Governance, International Studies  
 Communication Networks, Media, Information Society  
 Social Studies of Science and Technology  
 Environment, Resources and Sustainability  
 Environmental Change and Society  
 Environmental Regulations and Climate Negotiations  
 Social and Industrial Ecology  
 Population Dynamics, Aging, Health and Society  
 Households, Family and Fertility  
 Migration  
 Mobility, Tourism, Transportation and Logistics  
 Spatial Development and Architecture, Land Use, Regional  
 Planning  
 Urban Studies, Regional Studies  
 Social Geography, Infrastructure,  
 Geo-information and Spatial Data Analysis

*table continues overleaf*

	<p>including but not limited to:</p> <p>Evolution of Mind and Cognitive Functions, Animal Communication</p> <p>Human Life-span Development</p> <p>Neuropsychology</p> <p>Cognitive and Experimental Psychology: Perception, Action, and Higher Cognitive Processes</p> <p>Social and Clinical Psychology</p> <p>Linguistics: Formal, Cognitive, Functional and Computational Linguistics</p> <p>Linguistics: Typological, Historical and Comparative Linguistics</p> <p>Psycholinguistics and Neurolinguistics: Acquisition and Knowledge of Language, Language Pathologies</p> <p>Use of Language: Pragmatics, Sociolinguistics, Discourse Analysis, Second Language Teaching and Learning, Lexicography, Terminology</p> <p>Education: Systems and Institutions, Teaching and Learning</p> <p>Women's Studies,</p> <p>Gender Studies</p> <p>Pedagogy</p> <p>International Development</p> <p>Childhood Studies</p> <p>Criminology</p> <p>Government, Political Science, Political Theory</p> <p>Health Promotion</p> <p>Religious Studies</p> <p>Social and Economic Geography</p> <p>Social Policy</p> <p>Social Work</p>
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