Some notes on UK research funding

UK funding council structure



Arts and Humanities Research Council

AHRC funds outstanding original research across the whole range of the arts and humanities.



Engineering and Physical Sciences Research Council

EPSRC creates knowledge in engineering and physical sciences for UK capability to benefit society and the economy.



NERC is the driving force of investment in environmental science.

Research Council



Biotechnology and Biological Sciences Research Council

BBSRC invests to push back the frontiers of biology and deliver a healthy, prosperous and sustainable future.



Economic and Social Research Council

ESRC is the UK's largest funder of economic, social, behavioural and human data science



Innovate UK

Innovate UK is the UK's national innovation agency supporting business-led innovation in all sectors, technologies and UK regions.



Medical Research Council

MRC funds research at the forefront of science to prevent illness, develop therapies and improve human health.



Research England

Research England funds and engages with English higher education providers, to create and sustain the conditions for a healthy and dynamic research and knowledge exchange system in the higher education sector.



Science and Technology Facilities Council

STFC supports research in astronomy, physics, space science and operates world-class research facilities for the UK.



UKRI – overarching science funding organisation

STFC

- Particle physics & Particle AstroPhysics
- Nuclear Physics
- Astronomy
- Space Science
- National Labs
 - Rutherford, Daresbury and Boulby national labs
- Facilities
 - Diamond, DIRAC, Hartree, ISIS, RAL Space, ...
 - Support for international facilities: CERN, FNAL, ESS, ESO, ESRF, ...

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UKRI – overarching science funding organisation

Innovate UK

Focussed on technology for industry.

Funds industry and joint projects between industry and research organisations.

Many joint schemes with other councils.

Some of our funding focus on technology application comes through Innovate UK

Funding for PP: consolidated grant

Awarded on a 3-year cycle to UK PP institutes. Mostly (not exclusively) this funds our participation in running experiments and helps institutes retain technical expertise and infrastructure.

Primarily (but not exclusively) this funds research work on "approved" experiments that were also built with STFC support.

This funds (for Liverpool experimental PP group):

- 22 staff: senior and junior staff researchers on active experiments, several engineers and technicians.
- Some operating costs Liverpool workshop and LSDC; research consumables.
- Some capital equipment.
- Admin and computing staff and computing cluster support
- Travel to conferences

For Liverpool the current grant, Oct 2022 – Sep 2025 is about £9.5m over 3 years (about 50% of total). We will write the next CG application (25-28) in the last months of 2023.

The consolidated grants process also gets applications from experiments (1 application for all UK groups), to cover M&O cost, common fund contributions and experiment M&O related travel. Mostly funding "approved" experiments.

Same process is used for PP-theory

All applications are reviewed by the Particle Physics Grants Panel.

Funding for PP: Project Funding

The development and construction of future experiments is typically not funded through the consolidated grants.

Tradiational process to get funding

- Sol for UK participation in an experiment goes to science board
- Then proposal is invited, which is reviewed by PPRP (project peer review panel
- If successful funded out of STFC core science budget

More recently many (very large) projects have been funded from more generic UKRI opts of money (funding for international collaboration, infrastructure fund etc)

Smaller projects have also been funded with European (fellowship) funding

Funding for PP: other

There are several smaller schemes more suited for smaller activities. But strong focus on R&D and development for applications outside PP.

- Early stage research and development scheme
- late-stage commercialisation scheme
- CASE studentships
- Follow-on fund: Develop early-stage research outputs for commercial application
- Innovation partnertship scheme: Develop technology ideas for commercial application
- Challenge Lead Applied Systems Programme (CLASP)

Not so small:

- Quantum technologies for fundamental physics
- Centres for doctoral training

Funding for PP: fellowships

There are several fellowship schemes targeting different career stages.

Probably best route into a UK academic position.

Very early career

- Leverhulme early Career fellowship (3 years)
- Stephen Hawking Postdoctoral Fellowships (theory only, 3 years)

Roughly 3 to 10 years postdoctoral experience:

- STFC Ernest Rutherford fellowship (5 years)
- Royal Society University research Fellow (6-8 years)
- UKRI Future Leaders fellowship (4+3 years)
- ERC starting (consolidator) grants (5 years)
- Turing AI World-Leading Researcher Fellowships (5 years)

More than 10 years postdoctoral experience:

• ERC advanced (consolidator) grants (5 years)

To bring others to Liverpool

- Newton fellowship (early career)
- MSCA fellowships (early career)
- And more senior schemes ...

How to find funding opportunities

There are surprising many schemes for smaller and larger projects, R&D, travel, equipment, outreach, ... For funding council funding: UKRI funding finder

Other funders: ERC, Royal Society, Leverhulme Trust, Royal society of Edinburgh, InnovateUK, ...

A good place to find many opportunities is ResearchProfessional

Not discussed here, range of schemes that focus on research collaboration between specific countries.

Most important is to have a good proposal!! (If you have an idea you think could make for a good proposal, ask around the group about suitable schemes.)

STFC panels

STFC panels with vacancies in the 2023 opportunity

See applications for the new Science Board (PPAN) or Science Board (Facilities and Laboratories):

- Advisory Panel for Public Engagement
- Astronomy Advisory Panel (AAP)
- CERN Fellowship panel
- DiRAC Resource Allocation Committee Astronomy and Cosmology Sub-Panel
- DiRAC Resource Allocation Committee (DiRAC) Particle Physics and Nuclear Theory Sub-Panel
- Education Training and Careers Committee
- Ernest Rutherford Fellowship
- European Committee for Future Accelerators
- Gravitational Waves Grants Panel
- Innovation and Business Board (IBB)
- Life Sciences and Soft Materials Advisory Panel (LS&SMAP)
- Nuclear Physics Advisory Panel
- Oversight committees
- Particle Physics Advisory Panel (PPAP)
- Particle Physics Grant Panel Theory (PPGPT)
- Physical Sciences and Engineering Advisory Panel (PS&EAP)
- Projects Peer Review Panel (PPRP)
- Public engagement grant panels:
- Nucleus Award Panel
- Spark Award Panel
- UK Square Kilometre Array Observatory (SKAO) Regional Centre Project Board
- UK Square Kilometre Array Observatory (SKAO) Science Committee

Call for applications to STFC advisory bodies and peer review panels

Closing date for applications is 14 May 2023.

Every year, a number of vacancies become available on the Science and Technology Facilities Council's (STFC) advisory bodies and peer review panels. These bodies perform a vital function for STFC, providing advice and guidance that aids our strategic direction and supports our decision-making processes.

Panels accepting applications from early careers

- Advisory Panel for Public Engagement
- Astronomy Advisory Panel (AAP)
- CERN Fellowship Panel
- DiRAC Resource Allocation Committee Astronomy and Cosmology Sub-Panel
- DiRAC Resource Allocation Committee (DiRAC) –
- Particle Physics and Nuclear Theory Sub-Panel
- Education Training and Careers Committee (ETCC)
- Ernest Rutherford Fellowship (ERF)
- Innovation and Business Board (IBB)
- Life Sciences and Soft Materials Advisory Panel (LS&SMAP)
- Nuclear Physics Advisory Panel (NPAP)
- Particle Physics Advisory Panel (PPAP)
- Particle Physics Grant Panel (PPGP)
- Physical Sciences and Engineering Advisory Panel (PS&EAP)
- Solar System Advisory Panel (SSAP)