



Clarification of STFC Support for Gravitational Waves Research 2023

This document provides clarification for researchers regarding STFC support for Gravitational Waves research and the relevant funding mechanisms. The table below clarifies the relevant funding opportunity for each activity within the Gravitational Waves programme.

Type of Activity	Description	Funding Opportunity
Exploitation	Exploitation activities within the LIGO Scientific Collaboration: modelling tools, data pipeline development, signal processing, data analysis within the collaboration.	Particle Astrophysics GW Consolidated Grants
Exploitation	Gravitational wave astronomy and astrophysics, including theoretical research. Exploitation based on public data releases, theoretical development, black hole cosmology, multi-messenger astronomy etc.	STFC Astronomy Grants
R&D for current programme	R&D for the current LIGO programme which supports the continuous improvement, optimisation and development of the existing LIGO detectors. This is focussed on the LIGO programme but may be of benefit to next generation detectors.	Particle Astrophysics GW Consolidated Grants
R&D for Next Generation GW detectors (ground-based)	R&D for next generation projects for example cryogenic interferometry, mirror coatings and suspensions.	Statement of Interest to Science Board (PPAN) or submission to the STFC Visions Panel for funding through STFC core programme or UKRI collective funding.
Pre-Production (ground-based)	Pre-production programme for specific detector development	Statement of Interest to Science Board (PPAN) or submission to the STFC Visions Panel for funding through STFC core programme or UKRI collective funding.
Construction (ground-based)	Construction of new detectors or upgrades to existing detectors.	Statement of Interest to Science Board (PPAN) or submission to the STFC Visions Panel for funding through STFC core programme or UKRI collective funding.



Maintenance and Operations	Maintenance and operation of detectors to ensure continuity of observation and improved level of sensitivity of observations (including detector characterisation). This includes on site detector support and shifts undertaken by UK groups, as well as provision of computing resources for Gravitational wave searches and parameter estimation.	STFC GW Consolidated Grants
Detector R&D and construction (space-based)	R&D and construction of space-based instruments and ground based data centres for Gravitational wave research.	UK Space Agency

What's changed since 2020?

Following a review of the support for GW, STFC has clarified how it will support GW related R&D. R&D to optimise the existing supported programme (e.g. LIGO) can be requested through the GW Consolidated Grant. R&D for next generation detectors will not be supported through the GW Consolidated Grant. R&D for future GW detectors should be supported through project funding and requested through a Statement of Interest to Science Board (PPAN) or the submission of a Visions proforma.

Exploitation support can continue to be requested through the GW Consolidated Grant or the Astronomy grants, depending on the nature of the activity. Please note the Astronomy grants programme has now changed from Consolidated Grants to supporting Small and Large Awards.

Support for GW Maintenance and Operations of the existing LIGO programme can still be requested through the GW Consolidated Grant.

My research falls into both Astronomy and the Particle Astrophysics programmes – which programme should I apply for?

In some cases a group's research may span both programmes and it is more appropriate to apply for a coherent programme of work which has relevance to both the astronomy and particle astrophysics programmes. In this case, you should consider the remit definition to decide where the majority of your research fits and apply to that programme. In order to ensure that the proposal undergoes fair and transparent review, STFC will follow the principles of peer review outlined under the 'Applications across Research Council remits' policy for e.g. seeking reviewers from both panels, cross panel membership etc.

Can I apply through both the astronomy grants and the particle astrophysics gravitational wave programme?

Yes, you can apply to both programmes, as long as you apply for clearly differentiated activities and present two different programmes of work. You should not apply for funding for the same activity to both programmes and STFC will monitor to ensure there is no duplication of funded activity across the programmes. It may be the case that the two applications form part of an overall research programme, but you should explain which activities are relevant to each programme.



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When does the definition come into effect?

The definition applies from September 2023.

How will you ensure that research will not fall between panels?

We will ensure that there is liaison between the Grant Managers, Programme Managers and the Panel chairs within both programmes to ensure that proposals are not rejected by both panels. If you are applying to a programme for a new activity or the first time, please inform the Grants Managers before submission to ensure that your proposal is considered appropriately.

Further Information

If you have any queries regarding the remit of a particular activity, please contact the following:

Astronomy

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Particle Astrophysics

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UK Space Agency

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