

Astronomy Small Award Research Grant Application Guidelines – 2023

Introduction

The purpose of these notes is to provide guidance and instructions to Applicants when preparing a Small Award application for consideration by the Astronomy Grants Panel (AGP). They are intended to supplement the information available in the <u>Research Grants Handbook</u> and <u>Je-S system</u>.

The notes provide guidance on the following:

- 1. Eligibility to Apply to the 2023 Small Awards Round
- 2. Aims of the Scheme
- 3. Small Award Remit
- 4. Timetable
- 5. Applying through Je-S
- 6. Small Award Scope and Requesting Resources
- 7. Structure of Small Award Applications
- 8. How will we assess your application Peer Review
- 9. Additional Information

1. Eligibility to Apply to the 2023 Small Awards Round

Applicants may submit up to two applications to the Small Award round, only one of which can be as the Principal Investigator (PI), subject to the 2023 eligibility for PIs. Applicants must adhere to the FTE limits as per the guidance in section 4.

Applicants are eligible to apply as a PI to the Small Award scheme in 2023 if they satisfy one of the following criteria:

- The Applicant applied to the 2020 consolidated/consortium grant round and would be due to submit in 2023.
- The Applicant requested a slippage to their submission year and is due to apply in 2023.
- The Applicant applied to the 2022 round and has been invited to resubmit their project to the 2023 round.
- The Applicant is a newly appointed Academic member of staff who has joined a department between Consolidated or Consortium submissions. *
- The Applicant was unable to apply with their group's last Consolidated or Consortium submission (e.g. due to extenuating circumstances such as maternity leave, parental leave, caring leave, etc). *

Applicants who are eligible to submit in 2023 are **not required** to submit an application in this round. They may choose to submit to a later round.

*If you would like to apply to the 2023 round under the new applicant criteria or you were unable to apply with your group's last submission please contact the Office (<u>kim.burchell@stfc.ukri.org</u> and <u>chloe.woodcock@stfc.ukri.org</u>) ahead of submission to inform them of your intent to apply and ensure you are eligible.

Co-Investigator eligibility is open to all applicants, providing the PI is eligible to apply as per the conditions above. All applicants must also meet the general investigator eligibility criteria and check the guidance which can be found in the <u>Research Grants Handbook</u>.

Applications to the Small Award scheme are welcome from both single research organisations or multiple research organisation consortiums.

The Large Awards scheme will not be running a call for submissions in 2023. The first opportunity to apply for this scheme will be in March 2024. Applicants should note that the two schemes are decoupled; a submission to either scheme will not affect the eligibility to apply to the other.

2. Aims of the Small Award scheme

The specific aims of the scheme are to:

- Ensure that the programme supported is scientifically excellent and is clearly in line with stated Council strategic science objectives.
- Consider the strategic objectives of the UK Space Agency, address the impact agenda and be responsive to changes and new ideas.
- Ensure that the process is transparent and accountable, particularly with respect to the means of prioritisation.
- Ensure that the outcome, where appropriate, takes account of the Council's and the UK Space Agency's current and planned investment in facilities.
- Ensure that there is an appropriate balance between observations, instrumentation, and theory and between the various sub-disciplines of astronomy and the development of novel, generic technologies for astronomy and space science, consistent with the overall strategy of Council and the UK Space Agency.

3. Small Award Remit

The Astronomy Grants Panel (AGP) will assess and provide recommendations to the STFC Executive and the Science Programme Advisory Committee (SPAC) of the UK Space Agency (UKSA), under the dual key arrangement, on all responsive research grant applications in astronomy and space science covering basic research, exploitation, theory and modelling, and the development of basic ('blue skies') technology (TRL 1-4) related to the programme.

The AGP will comprise experts to cover all science areas of the programme and provide an overview of the process and programme to ensure support is provided to research of the highest quality across the science programme. Sub-Panels of appropriate experts from the AGP will meet to assess elements of each proposal that fall within their remit and to provide input to the overall recommendation. The remit of each Sub-Panel is given in the details of the calls described below and should be referred to prior to submitting a proposal. The full AGP will review the output of the meetings and draw up final recommendations to be submitted to the Science Board (SB) and to UKSA SPAC.

Research Remit of Small Awards

The AGP offers two calls for Small Award applications. The same deadline applies to applications to the two calls. The remits of these two calls are set out below: if Applicants have any doubt about which call a particular application should be submitted to, they are <u>strongly encouraged</u> to discuss this with the office at the earliest possible opportunity. Applications judged by the Panel to be submitted to the wrong call will be **REJECTED**.

Applicants can submit a maximum of two proposals per round (spanning both call remits); only one can be as the PI (subject to the 2023 PI eligibility criteria listed above).

Astronomy Observation (AO) and Astronomy Theory (AT) Call

This call covers theory, including modelling, simulation and related software development, observation, experiment and new technology research, relevant to all aspects of astronomy and astrophysics beyond the solar system. This includes:

- Stellar physics, including star formation and extra-solar planetary systems (studies of the Sun as part of a programme of stellar physics may fit here).
- Studies of transient phenomena.
- The interstellar medium and galactic astronomy.
- Extra-galactic astronomy and cosmology.
- The astrophysical aspects of particle astrophysics, where particle astrophysics includes dark matter, the origin of cosmic rays and gravity.
- Blue skies technology/instrumentation development applicable to the above areas (TRL 1-4).
- Laboratory astrophysics, including software development, relevant to the above programmes.

Solar Studies (SS) and Planetary Studies (PL) Call

This call covers theory, including modelling, simulation and related software development, observation, experiment and new technology research, relevant to all aspects of solar system science. This includes:

- Solar physics and heliospheric physics.
- Space-based terrestrial magnetospheric science and fundamental space plasma physics (excluding the impact on the Earth's neutral atmosphere).
- Planetary science, including the surfaces and interiors, atmospheres, ionospheres, and magnetospheres of the solar system bodies other than the Earth.
- Studies of other solar system bodies including comets, asteroids, meteorites, etc.
- Laboratory studies of solar system material such as meteorites, returned samples, solar system analogues, other laboratory physics relevant to the area of the call and related software development.
- Blue skies technology/instrumentation development applicable to the above areas (TRL 1-4).

If your application is in one of the following research areas we strongly advise you contact the Office to check the remit ahead of submitting:

Technology Development - The AGP will consider funding astronomy and space science applications at technology readiness levels (TRL) 1 - 4 or their equivalent (Eligibility of technology readiness levels (TRL) – UKRI). Modest upgrades to existing equipment, related to the delivery of science within the course of the project requested, may be considered. The UKSA will consider space mission-related applications at TRL 5 and above.

Gravitational Wave Research - The AGP will consider funding support for some aspects of gravitational wave research. STFC is considering the peer review route for Gravitational Wave exploitation science and will provide specific guidance with respect to this in the near future. Applicants should contact the office for urgent advice as required.

Space Weather and the Impact of the Sun on Terrestrial Systems – STFC will support non-Earthorientated solar-terrestrial physics research e.g., fundamental space plasma physics not related to the Earth. STFC will also fund space-based facilities (spacecraft, instruments and operations) for solar terrestrial physics and their associated primary exploitation.

NERC is responsible for funding solar terrestrial physics where the primary goal is to understand the Earth's environment from the deep interior to the upper atmosphere (i.e., mesosphere, thermosphere and ionosphere).

Mars Exploration and Sample Return - Studies related to the UKSA's programme of Aurora science (Mars exploration and sample return) should be addressed to the UKSA (<u>SpaceExploration@ukspaceagency.gov.uk</u>) in the first instance, as separate funding may be available.

4. Timetable

Date:	Action:
8 th March (4pm)	Deadline for submission of Small Award applications
April/May	Expert Peer Review
June	Applicants to respond to reviewer comments
September	Peer Review Panel Meetings
October	Science Board and UK Space Agency endorsement
October / November	Outcome Announced

5. Applying through Je-S

Je-S Submission – <u>Je-S Guidance</u>

All proposals should be submitted via the Je-S system, selecting the following: Doc Type: Standard Proposal Scheme: Standard Call: Either AO & AT Small Awards 2023 OR SS & PL Small Awards 2023 Please note the deadline for submission is Tuesday 8th March at 4.00pm

If you are submitting as part of a multi-organisation (consortium) proposal, the lead research organisation (RO) should submit the documentation required and each RO will need to submit a separate Je-S form. Je-S functionality allows such proposals to be linked and this linkage is supported by the grants system. Applicants are therefore expected to use the linking functionality.

6. Small Award Scope and Requesting Resources

The AGP considers applications which are wide-ranging in the level of resources requested, and would expect to see specific, explicit and compelling justification for all requests. The AGP will consider different levels of request but lack of compelling justification will have a negative impact on the assessment of the proposal, and may lead to a proposal being **REJECTED**.

Applicants are advised we will no longer be providing a suggested guideline cost for PDRA/Applicant/visiting researcher travel, computing, secretarial or computing support. Applicants can still request these costs but should consult the links provided below and request/justify what is required to support the project.

Applications to the Small Award scheme may contain a single project (requests for multi-project small awards will be rejected) which must follow the resource guidance below:

- 3 years maximum, all awards must start on 01/04/2024.
- Maximum of 1FTE of PDRA effort. (The panel recognises that technical or lab-based projects may require fractions of the time of specialist PDRAs, but this should not exceed the overall envelope of one FTE of PDRA effort per project.)
- Maximum 0.20FTE of Applicant time, with the PI expected to request a minimum of 0.10FTE to lead and manage the project.
- There may also occasionally be projects which involve only Investigator time or Investigator plus technician time.

Requesting Staff Posts

Applicant Time (FTE) – please refer to the research grants handbook <u>Investigator posts – UKRI</u> Applicants should note that the Je-S system averages Applicant time over the duration of the Proposal. The actual request, which may vary over the years, should be made clear on the requested summary table.

- The PI would be expected to request a minimum of 0.10 FTE for scientific contribution, oversight of the project and management of any personnel involved.
- An Applicant is NOT permitted to request more than 0.20 FTE (costed or uncosted) within the round.

Requesting Applicant time but with zero salary costs

Applicants who are not requesting a salary contribution may request support costs such as travel/subsistence or other directly incurred costs. Applicants **MUST** make it clear whether Estates and Indirect costs have been included in the request. Please ensure you apply for these posts correctly via the JeS system; applicants requesting zero salary and zero overheads should be entered as zero FTE and zero cost. Applicants requesting zero salary and overheads (Estates/Indirect costs) should enter charged hours and FTE in the system but at zero cost.

Requesting Un-named Research Staff and Named Research Staff (PDRA posts) – please refer to the Grants handbook <u>Research Staff.</u>

Technical and Other Staff – please refer to the Grants handbook (Other staff – UKRI)

Please note that requests for studentships are not eligible within the Small Awards Scheme.

Applicants can also request and make the case for the following project specific costs:

- o Travel and Subsistence (Travel and subsistence UKRI)
- o Directly Incurred (<u>Other costs UKRI</u>)
- Directly Allocated Other Costs (<u>Other costs UKRI</u>)
- Equipment (Equipment UKRI)

The Research Organisation is expected to provide standard laptops from Indirect costs. Laptops may only be costed to the application where a higher specification of laptop is required for the completion of specific grant-related activities such as data modelling, enhanced graphics etc.

7. Structure of Small Award Applications

Failure to comply with the requested information/format and page limits will result in the proposal being rejected.

In its assessment of applications, the Panel refers to the high-level categories detailed in the Research Grants Handbook <u>Assessment Criteria</u>. Applicants are advised to consult the assessment criteria ahead of writing and submitting their application.

The AGP Small Award assessment criteria are as follows (please be advised the first four categories have the higher weightings in the assessment process):

- Importance of the proposed research
- International competitiveness of the project, and of the team given career stage
- Feasibility of the proposed work, including resource justification
- Project management
- Strategic value to STFC/UKSA
- Potential impact from the proposed research

All pages (including references) must be in an appropriate font type and size; please refer to the <u>Je-S</u> <u>Guidance</u> for more information. Our preferred font type/size is Arial Standard Pt 11.

Applicants should **classify attachments** correctly using the options available in Je-S and submit as a PDF. **Failure to do so will result in the application being rejected.**

Any links to material outside of the application will be disregarded.

Required Information/Attachments:

Case for Support

In writing the case for support, the Applicant is reminded that not all members of the Panel will be equally familiar with the research topics or methods involved. Therefore, you should ensure your application is presented in such a way that is easy for the entire peer review Panel to follow.

Your case for support must include the following sections and adhere to the section page limits:

- Section 1: Research Case 4 pages
 - Project title, this should include which of the Sub-Panels the project relates to (Astronomy Observation, Astronomy Theory, Solar Studies or Planetary Studies), a summary of the FTE requested, an indication of the relevance of the project to Space-Based or Ground-Based activities (or both) and an indication of the project activity (data exploitation and experiment; development of new instrumentation, facilities or techniques; theory & simulation). E.g.

Title: A new window on the universe (Astronomy Theory)

Applicant 1 (name) 10%, Applicant 2 (name) 5%, PDRA (name) 100% - Total FTE 1.15 30% Ground based - 70% space based: Exploitation & Experiment 50% - Theory and simulation 50% Your application should address the following:

- The scientific background, motivation, international positioning and potential for advancement of the field.
- The track record of the team involved in the project; some suggestions for demonstrating track record are:
 - Relevant experience and capabilities of the individuals/team
 - Existing relevant partnerships / collaborations
 - Key publications and other research outputs (technical reports, hardware development, code development etc).
 - Applicants should also use this section to identify any career breaks / absences.
- Methodology and workplan, including timeline e.g., Gantt chart (if appropriate).
- Clear descriptions of the roles and contributions by all PDRAs, Technicians and Applicants requesting funding or support at zero salary cost.
- Risk mitigation; risks related to access to expertise, data, instruments, facilities etc. should be identified and mitigations provided.
- Appropriate references.
- Section 2: Justification of Resources maximum 1 page

- Applicants should describe and <u>fully justify</u> all elements of their application in this section - <u>Case for support – justification of resources – UKRI</u>. This section must not be used to further develop the research case.
- Section 3: Requested Summary Table maximum 1 page
 - Applicants **must** complete a simple requested summary table in the same format (including coloured text) as the example provided. Download a worked <u>example</u>
- Section 4: Facility usage form maximum 1 page
 - Please refer to the <u>Facilities Table template and guidance</u>.
- Section 5: Impact maximum 1 page
 - Applicants must include research-specific impact within their case for support, including how their research will reach key stakeholders. <u>Read the full STFC impact</u> guidance for grant applications. The <u>STFC assessment criteria</u> provide general examples of impact to consider which cover social, economic and academic impact. Applicants can request resources to deliver impact within this 1 page as long as it is appropriately justified and specific to the research of the application. FTE requested in support of outreach activities is in addition to the maximum 20% FTE limit per project. Applicants should avoid requesting funding for generic outreach activities as other STFC schemes are available for such funding (public engagement grant schemes).
- Section 6: Relevant current support and abstracts no page limit
 - A summary of all active support from STFC, the wider UKRI, or other funding agencies (e.g., ERC, Royal Society) held by the Applicants/PDRAs on the application which are relevant to the proposed programme of work. You must include the title, value, staff posts funded, start and end dates and a complete abstract.
 - Please provide information for any applications currently under consideration, either with STFC/URKI or other funding agencies, where they are relevant to the application you are submitting.
 - It is the Applicants' responsibility to demonstrate to the Panel that the programme to be carried out in the Small Award is clearly distinct from existing support. If you are unsure of the eligibility of your application, please contact the Office ahead of submitting.

Note the page limits within the case for support are not transferable between sections.

Data Management Plan – maximum 2 pages

• Please refer to the <u>Data Management Plan Guidance</u> and Je-S guidance.

Additional information

Additional information may be included as part of the application if considered essential for the Panel's assessment.

- Letters of Support (a maximum of 3 letters) letters of support guidance
- **Project Partner Letters of Support** (maximum 2 pages per letter) <u>Project partner letter of</u> <u>support guidance</u>
- Equipment quotes For single items over the £138k threshold, please refer to Equipment Guidance.

Do not submit

• CVs are not required and should not be submitted

Failure to comply with the requested information/format and page limits will result in the

proposal being rejected.

8. How will we assess your application - Peer Review

STFC is committed to the UKRI <u>Principles of Peer Review</u> throughout our assessment and decisionmaking processes. The AGP assessment criteria are detailed in section 7 of this document.

Reviewer Comments

We will invite two to three UK and international experts to review your application. You will then be given the opportunity to respond to comments.

Applicant response to Reviewer comments

Applicants will be given the opportunity to see and respond to Reviewer comments via Je-S. The page limit for a response is a maximum of 0.5 pages per review received. <u>Applicants are strongly advised to be clear and concise in their responses.</u>

The responses should be returned via Je-S within 10 working days of receipt. If an Applicant exceeds the page limits the response will be rejected.

Peer Review Meetings

The AGP is a peer review assessment Panel. It will consider the documents provided in the application, as well as the reviewer comments and any PI responses to reviewer comments, in its assessment of your application.

The AGP comprises four Sub-Panels of experts covering the following four broad science areas within Astronomy:

AGP: AO - Astronomy Observations AGP: AT – Astronomy Theory AGP: SS – Solar Studies & Space-based Solar Terrestrial Physics AGP: PL – Planetary Studies

In addition, a Technology Sub-Panel provides expertise on the AGP to appropriately tension technology and exploitation/theory projects. Details of Panel membership can be found at <u>AGP Panel Members</u>

The AGP is committed to support the recommendations and principles set out by the <u>San Francisco</u> <u>Declaration on Research Assessment</u> (DORA). We do not use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles when assessing proposals.

Post-meetings / Communicating Outcomes

The AGP Chair will report to STFC Science Board and to the UKSA on the recommended outcome for the round. The final funding line will be determined by the STFC budget holder at which point Applicants will be informed of the outcome with appropriate feedback. We aim to communicate outcomes and provide feedback by November.

Future Submissions to the Small Award Scheme

If you are unsuccessful applying as a PI in the 2023 Small Award round you will not be eligible to apply to the 2024 Small Award round as a PI. You would next be eligible to submit as a PI to the 2025 Small Award round.

If you are successful in securing funding as a PI in the 2023 Small Award round then you cannot

apply again for a Small Award as PI for funding which would overlap your award (not taking into consideration no cost extensions).

If your proposal was unsuccessful in securing funding, we will not permit the same proposal to be submitted in the subsequent year with different applicant roles assigned (e.g., a role reversal between PI and Co-Is).

9. Additional information Contacts

Senior Programme Manager - <u>Chloe.Woodcock@stfc.ukri.org</u> Head of Astronomy Awards – <u>Kim.Burchell@stfc.ukri.org</u>

Useful Links Peer review and assessment Equality and Diversity Researchfish - Reporting Outcomes

Impact Guidance

Annex 1 – Timeline for Submissions to Small and Large Awards

2020 2021 2022 2023 2024 Small Awards Earliest 2020 CG round applicants can apply as a PI CG Small Awards SUBMISSION Large Awards Small Awards Earliest 2021 CG round applicants can apply as a PI CG SUBMISSION Large Awards Invited submissions from near-miss PIs Small Awards CG Large Awards SUBMISSION Earliest 2022 CG round applicants can apply as a PI

Timeline for Phased Submission to Small Awards (Small and Large Awards)

Large Awards are intended to provide support for science-themed programmes, with the aim of providing a concerted and coordinated effort to address a specific research area and/or technology development. The size of the award must convey the ambition and scope of Large Award funding. Submissions can be from a single research organisation or a consortium of multiple research organisations. Large Awards are NOT intended to be a collection of Small Award projects. Detailed guidance will be available in due course.