Report of the 2024 Astronomy Grants Round

Prepared for the UK astronomy community

Mark Sullivan (AGP Chair)

Dear colleagues,

In October 2024, the Astronomy Grants Panel (AGP) concluded its review of the 2024 round of applications. In the normal course of events outcomes would have been released to applicants in November, with this usual summary report on the round following soon thereafter. However, this round has not followed this pattern, with unexpected and challenging financial constraints delaying the outcomes being announced by STFC.

The situation is difficult, and to manage the expected outcomes from the Spending Review, STFC has been required to reduce the level of AGP funding. The new grants that have been announced are worth around £7.5M in financial year 25/26: less than the £12.7M of new awards that were made in 24/25 due to a reduction in the total AGP grants budget (a budget that includes commitments from previous rounds). This reduction in the AGP funding has been managed in part by delaying the start of all grants to July (from April), and in part by a reduction in the number of successful 'Small Awards' to 48.

The report that follows provides the usual summary of the round and statistics, and the issues emerging, together with a brief look to the future. I hope that it will be helpful to the community.

Overview of the 2024 round

The STFC Astronomy Grants Panel (AGP) assesses responsive research grant proposals in astronomy and space science covering basic research, exploitation, theory and modelling, and the development of basic ('blue skies') technology at TRL 1-4 related to the programme. 2024 was the second year of the AGP Small Awards (SA) scheme and the first year of the Large Awards (LA) scheme, the two schemes that together replaced Consolidated Grants (CG).

SAs are awards of up to three-years, typically for one Research and Innovation Associate (RIA), applicant[1] time, additional technical support, and other project-specific costs necessary for the research. Applications are invited to either the Astronomy Observations and Theory (AO/AT) or the Solar Studies and Planetary (SS/PL) call. LAs support programmatic projects tackling big research questions or technology development from across the combined AOAT/SSPL remit, with the potential to produce world-leading research. LAs have a 3 to 5-year duration with RIA support of between 9 and 25 years, together with applicant time, technical support, and other project-specific costs. Neither SAs nor LAs have financial caps.

Small Awards: The AGP received 159 applications for SAs. 154 were assessed at panel, and the highest-ranked 48 funded, supporting 63 applicants. The overall proposal success rate was 31%, a decrease from three years ago when most of the 2024 applicants last submitted.

Large Awards: The AGP received 11 full applications to the new LAs scheme, selected from 39 outline proposals by the LA sift panel, funding the three highest-ranked of these (27% success rate) supporting 24 applicants. These proposals represent some of the best of UK astronomy, judged by the AGP to be world-leading projects enabling critical/fundamental advances in their research areas.

Unlike in previous years, we are unable to monitor the gender balance of funded applicants or success rates due to limitations in new 'The Funding Service' (TFS). This is a source of considerable frustration to the AGP, given we have reported on these statistics for more than a decade.

Applications Received

Small Awards: To manage demand in the early years of the SA scheme there is a 3-year phase-in period. In 2024, applicants eligible to apply were those who were last eligible for the CG round 3 years previous (2021), plus new applicants, plus those who were eligible for the 2023 SA round but chose not to submit. Table 1 shows some selected statistics from the 2024 SA scheme in comparison to 2023 and to the final years of the CG scheme.

[1] Throughout, we refer to Project Leads and Project co-Leads collectively as 'Applicants'.

Some of the clearest requests from the community while the SA scheme was being developed was for more flexibility in the timing of applications (e.g., breaking out of the fixed 3-year cycle of the CG scheme) and the flexibility to work cross-institution. There is evidence that this flexibility is being used in practice: compared to the 2021 CG round, there was a 22% drop in proposal numbers but only a 3% drop in applicant numbers. The reduction in the number of proposals likely reflects applicants choosing to wait to apply as Project Lead, while the continuing popularity of Consortium proposals indicates that applicants are taking advantage of the opportunity to collaborate.

Table 1: 2024 SA proposals compared to 2023, and previous CG rounds for an approximate comparison.

Application information†	**2024 (SA)**	2023 (SA)	2022 (CG)	2021 (CG)
Number of individual applicants (Leads & Co-Leads)	**230**	237	213	238
Number of proposals (projects in CGs)†	**154**	174	186	197
Requested total RIA (PDRA) staff years	**461**	514	537	582
Requested total Technician staff years	**28**	26	32	22
Consortium proposals††	**17**	16	2	3

† excludes proposals either rejected by the STFC Office before peer review or withdrawn.
†† defined as those involving applicants from more than one research organisation.

Large Awards: 2024 was the first round of LAs. 39 outline proposals were submitted in October 2023 to the LA sift panel[2]. 11 of those were invited to submit a full proposal, and all 11 did so. These submitted LAs were all consortium proposals with 2 to 7 research organisations, with an average of 4.

Funding Outcomes

The AGP funding outcomes are summarised in Table 2.

Table 2: Resources requested and funded for the 2024 round. FTE numbers are per year, averaged over three years for SAs and five years for LAs.

Overview of 2024 round	**Small Awards**		**Large Awards**	
	Requested	**Funded**	**Requested**	**Funded**
Number of proposals reviewed	154	48	11	3
Total Applicant FTE	28.9	8.9	8.4	3.2
Total RIA FTE	154	48	44	13.5
Total Technician FTE	9.2	3.7	12.0	1.3

For SAs, the proposal success rate is 31%, comparable to the lowest CG project success rate in 2020 (30%) and lower than in 2021 (36%). In total, 63 applicants received funding.

3 LAs were funded, which was the expectation when the scheme was being designed. This is a success rate of 27% (8% from outline stage). In total, 24 applicants were funded. The funded LAs span 13 groups across 11 research organisations.

Thus, across both schemes, a total of 87 applicants were funded. There were no applicants funded in both the SA and LA schemes.

[2] The November LA sift panel is designed to be entirely independent from the main LA panel that meets the following September.

A summary of the resources funded in the 2024 round compared to earlier rounds can be found in Table 3. Applicant FTE rules changed between CGs and SAs, and for LAs, and thus are not directly comparable. We note the increase in RIA numbers from about 70 (2021 and earlier) to about 80 (2022 and 2023), due to the uplift in funding in 2022 and 2023, and the now sharp decrease to about 60 due to the funding cuts.

Table 3: Funded resources in the 2024 round, compared to earlier rounds. Numbers are per year.

	Funded resources				
	2024 (SA+LA)	**2023 (SA)**	**2022 (CG)**	**2021 (CG)**	**2020 (CG)**
Number of proposals	48+3	84 (48%)	85 (46%)	70 (36%)	75 (30%)
Total Applicant FTE†	8.9+3.2	15.7	14.9	12.7	14.2
Total RIA FTE	48+13.5	83.7	81.3	70.0	71.0
Total Technician FTE	3.7+1.3	3.4	2.2	13.1	5.6

† Due to different rules for requesting FTE in LAs compared to SAs and CGs, the 2024 applicant FTE numbers are not directly comparable to earlier rounds.

Discussion

The AGP panel process and timeline was largely unchanged this year, although the announcements of the outcomes were severely delayed. Details of the changes can be found in the Appendix.

Diversity Information

The AGP Chair and the STFC astronomy team each year explore possible biases in AGP's decision-making. We firstly aim for diversity in panel composition[3]. This year, 9 out of 24 of the AGP SA panel members[4] were women, and 4 out of 11 on the LA panel. All four main SA sub-panels (AO, AT, SS and PL) included at least one woman, and two of the four SA sub-panel chairs are women. However, recognising that everyone is subject to the same unconscious biases extending beyond just gender, our panel preliminaries emphasise that panel members should be aware of, and vigilant for, these.

Historically, we have also examined demographic information of applicants and their success rates using information recorded on the Je-S. However, the new application system – The Funding Service – does not record this information, and thus no analysis is possible. Our view is that this is a significant backward step that in the longer term may serve to undermine confidence in the AGP process.

Scientific area balance

The ratio of funded SA proposals in AO/AT to that of SS/PL is 0.67:0.33 which is, by design, the same as the ratio of the proposals submitted to the two calls. The success rate for SA proposals within the individual sub-panels is dominated by small-number statistics; for example, the funding (or not) of a single SS proposal changes the SS success rate by 5.5%; the difference in SS versus PL success is therefore due to 2 proposals being funded in the SS remit rather than the PL remit. For LAs, we recommended funding two proposals in the SSPL remit and one in AOAT. Table 4 summarises SA proposal numbers and success rates for each sub-panel.

[3] AGP membership: https://www.ukri.org/who-we-are/stfc/how-we-are-governed/advisory-boards/astronomy-grants-panel/

[4] During the course of the peer review process, three AGP members withdrew due to unforeseen circumstances and were replaced with new panel members. This did not alter the gender balance of the panel.

Table 4: 2024 SA proposals and success rates in the different sub-panel areas.

	AO	AT	SS	PL	AO+AT	SS+PL	All
Peer reviewed	50	54	18	32	104	50	154
Funded	14	18	8	8	32	16	48
% success	28.0%	33.3%	44.4%	25.0%	30.7%	32.0%	31.1%

Demand Management – Small Awards

Demand management on the SA scheme is i) applicants can be on up to two proposals in each round but only act as Project Lead on one, and ii) a one round lock-out for unsuccessful Project Leads before they can act as Project Lead again. This compares to the two-round total lock-out of the previous CG scheme. To manage demand, the transition from the CG Scheme to the SAs is phased in over three years. Because of the flexibility of the SA scheme, SA applicants can choose to defer to a later year.

In 2024 there were 159 SA proposals, including 5 proposals rejected before peer-review stage or withdrawn. This was lower than had been anticipated from modelling: we estimate that around 45% of eligible applicants chose not to apply as Project Lead in 2024 (but may have applied as Project co-Lead). This indicates that there was some self-selection going on, i.e., applicants not feeling obliged to submit proposals as Project Lead before the time was right. When combined with our experience from last year where a similar effect was observed, it is the panel's unambiguous view that this flexibility and self-selection results in a higher average quality of proposals submitted.

Demand Management – Large Awards

This was the first year of LAs. The proposal quality was high, and generally showcased the excellence of UK astronomy. The two-stage application process worked well, and is consistent with that used in other large UKRI funding schemes (e.g., EPSRC Programme Grants or NERC Large Grants, analogies to LAs). The intention is to reduce workloads for all, not require teams to write full proposals if their concept stands little chance of success, and focus panel/reviewer time on the highest quality submissions: the LA panel would not have the capacity to review the much larger numbers of full proposals that would otherwise likely be submitted. However, in future rounds the sift panel will invite fewer LAs to full application.

The LA Scheme was designed to have a one-round lock-out for unsuccessful applicants who were invited to submit at full application stage. However, this led to a discrepancy whereby unsuccessful outline-stage applicants were not locked out, but applicants who passed that stage (presumably with higher quality outlines) were locked out. This lock-out was therefore removed for the 2025 round. Other than being restricted to one outline per year and not being able to hold resource on more than one LA at a time, the LA Scheme has no demand management. As a key element of LAs is that applicants form the strongest possible teams with the most relevant expertise from across the UK, enabling the UK to produce the highest-impact world-leading research, harder to achieve if very significant fractions of the community are locked out each round.

The Funding Service

This is the first year that applicants, reviewers, the STFC office and the AGP have had to grapple with The Funding Service (TFS). AGP members expressed universal dissatisfaction with the new system, and continuing panel members from previous years indicated that shortcomings in TFS have significantly increased their workload. We also note the lack of demographic information recorded in the system, as flagged above, and the lack of capture of ground-based and space-based facility usage also prevents us from reporting on this. We strongly encourage the community to provide their own feedback on TFS on their experiences as applicants and/or reviewers, as solicited by that website.

Concluding Remarks

The AGP receives proposals to carry out research and technology development of the highest quality. This year was no exception. This second round of the SA scheme resulted in 31% of proposals reviewed being funded, and the first LA round led to the funding of three outstanding proposals. These LAs will give the UK leadership in research areas of fundamental and critical importance.

All grant start dates were delayed by three months, but were still awarded with their full requested duration. This was STFC's mitigation against the very worst effects of the reductions to AGP funding: without this, it is likely that one fewer LA and around 10 fewer SAs would have received funding.

Clearly, this is not a sustainable long-term solution, and it will have had a significant effect on any RIAs 'in post'; around 30% of SAs included a named RIA in the project team. Many of these RIAs will have been lost to other positions, or to positions outside academia, due to the combination of delayed announcements and slipped start dates.

The outlook to the 2025 round and beyond appears extremely challenging for the community:

- To manage demand, and with the community's backing, the SA scheme was phased in over 3 years. From 2025, the entire community will be eligible to apply, where not locked out by SA demand management. This may put the SA success rates under even further pressure.
- There is clear evidence, based on two years of expected and actual SA application numbers, that a large fraction of eligible applicants (around 35-45%) choose to wait until future rounds to apply as Project Lead. While this has resulted in a higher standard of submissions, it remains to be seen how this trend evolves as applicants will undoubtedly come under increasing pressure from their research organisations to increase grant submission activity.
- We note the ever-rising costs of academic, RIA and technical staff, as well as overheads charged by research organisations, will further erode into the budgets. As a simple example, in the 2024 SA scheme the median 80%fEC cost for an RIA, applicant time, overheads and modest DI costs is £158k per annum (including indexation during the grant). The equivalent 2023 SA round number was £147k, giving a 7% increase between 2023 and 2024. This starkly demonstrates the long-term compounding effects of cuts to the overall funding line. With employer costs rising we see no reason to expect the rate of increase of a cost of a grant to be significantly smaller in future rounds.
- It may not be affordable to reinstate April start dates for grants in the 2025 round; further slips may be necessary to protect the volume of awards. This will introduce almost insurmountable challenges to research organisations in retaining staff funded on current awards.
- There is no financial ring-fencing for either the LA or SA scheme, and so as LAs are five-year financial commitments, over-committing may generate significant financial challenges to STFC (and future panels) given the financial uncertainty and the ever-rising costs of applications.

This year's outcomes starkly demonstrate the criticality of the uplift received in 2022 and 2023. Although 'exploitation' remains, unambiguously, your (the community's) highest priority, and supports the use of the major national and international facilities in which UKRI/STFC and UKSA have made capital and infrastructure investments, it will only become clear with the outcome of the current Spending Review, whether a return to 2022 or 2023 levels of funding will be possible.

I would like to extend my sincere thanks to all those involved in the AGP peer review process: reviewers, panellists, and STFC staff. It is always a privilege watching the AGP in action, who work very hard through the summer months to ensure a fair and robust assessment. I'm very grateful to Prof Mark Swinbank for his support as Deputy, and I'd like to thank the community of external reviewers who produced the best part of 500 reviewer reports; the assessment could not happen without your work.

Finally, a special acknowledgement of the STFC Astronomy Office team. Each year, they deliver outstanding support to the panels and the broader community. This year was no exception: with both LAs and SAs running together for the first time, and with funding outcomes uncertain after the panels had completed their work, the workload and pressure was particularly demanding. The panels and the community deeply appreciate their commitment to our research.

Mark Sullivan

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Appendix – The AGP 2024 Process

Process Changes in 2024

The AGP panel processes are well-tested and have remained stable since 2020. Details can be found in links from the Funding Finder call pages (e.g., the SA calls for AOAT 2024 and SSPL 2024) and previous chair community reports. The main changes in 2024 were to the assessment criteria used.

Each proposal is now scored against criteria well aligned with the standard set of UKRI review and assessment criteria. These are:

- A: Vision
- B: Approach
- C: Applicant and team capability to deliver
- D: Resources and cost justification
- E: Risk management

In addition, each proposal must have acceptable 'Data management and sharing' and 'Ethics and responsible research and innovation' plans.

While there is a broad correspondence with the criteria used in 2023 and earlier, in detail the categories have adapted to reflect the UKRI assessment headings. Full details on what is assessed in each category are provided on the Funding Finder call pages, and in TFS.

Large Award Review Process

The LA peer-review process follows closely that of the SA process, albeit with a goal of a larger number of reviewer reports (five instead of three). The LA panel membership is finalised after the LA sift panel has been held to minimise conflicts and to ensure close expertise on the panel in the area of each invited LA. The assessment criteria are the same as for SAs.

The LA sift panel, held 4-5 months prior to the LA deadline, worked well and is an essential part of the process; the LA panel would not have the capacity to review the much larger numbers of full proposals that would otherwise likely be submitted.

Panel timeline

The AGP timeline for 2024 is detailed below. The timeline was adjusted after October 2024 due to lengthy budgetary discussions at STFC.

Date	AGP Activity
31 October 2023	Large Award outline closing date
November 2023	LA sift panel
December 2023	LA sift outcomes communicated. SA/LA proposal calls open on TFS.
14 March 2024	**Proposal closing date**
April 2024	Reviewers nominated and contacted
May/June 2024	Reviewers peer review applications
June 2024	Applicants respond to reviews
July/August 2024	Panellists read and review all proposals, including reviews and applicant responses
September 2024	AGP peer review meetings, and ranked lists agreed
October 2024	Science Board (PPAN) and UKSA DACS endorse outcomes; panellist feedback to applicants finalised.
November 2024 to March 2025	Detailed budgetary discussions at STFC executive level
March 2025	Outcomes released
July 2025	Grants commence

Each year, the AGP examine how the speed of the peer review process can be improved to reduce the approximately 8-month period from proposal submission (March) to panel rankings endorsed (October). However, there are external constraints that are significant: e.g., the September panel meetings cannot be moved earlier due to panellist conflicts with the August holiday period; panellists typically only have capacity to review their 50-70 proposals to which they are assigned outside of university term time, etc..

Further remarks

Two further points regarding the operation of peer review should be made here (and which are made by AGP Chairs most years).

(i) The AGP ranks projects across the whole observational, theoretical and technology programme, and each proposal is judged by a sub-panel drawn from across this range of expertise. Reviews obtained from external experts are a core aspect of this process. The panel will see many hundreds of reviewer reports each round, many of which are very positive, but is required to tension every proposal against all the other proposals. This can lead on occasion to a project not being funded despite receiving strong support from reviewers.

(ii) The AGP welcomes applications from applicants who have been successful in securing funding from other sources, but it is the responsibility of applicants holding related awards to demonstrate that the projects they are proposing to AGP are clearly distinct from (i.e., lie well outside the remit of) their other funding. Typically, this is most relevant to applicants who hold research fellowships, EU/ERC funding, or other research grants providing postdoctoral support. Applicants often find this challenging, as they must make the case that their proposed research is of the highest scientific priority, but also explain why the research is not covered by their existing funding, often in a similar research area.