

**DiRAC Resource Allocation Committee****DiRAC Resource Allocation Committee 15th Call Main Panel Meeting**

Friday 10th March 2023

Astronomy / Cosmology Sub-Panel Members:

Prof Andrew Pontzen, UCL (Chair)

Prof Rob Crain, Liverpool John Moores University (Deputy Chair)

Dr Rebecca Nealon, University of Warwick

Particle Physics / Nuclear Theory Sub-Panel Members:

Dr Chris Bouchard, University of Glasgow (Chair, and Chair of this meeting)

Prof Maurizio Piai, Swansea University

Prof Antonin Portelli, University of Edinburgh

DiRAC:

Prof Mark Wilkinson, University of Leicester (DiRAC Director)

[REDACTED] (DiRAC Technical Manager)

[REDACTED] (DiRAC Technical Manager - Operations)

STFC:

[REDACTED] (Senior Programme Manager)

[REDACTED] (Secretary)

Apologies:

Dr Clare Jenner, University College London (DiRAC Deputy Director and Project Scientist)

1. Welcome and Introductions

- 1.1. The Chair welcomed the attendees to the meeting. The aim of the meeting was to finalise the allocations for the proposals submitted to the 15th Call and to discuss the planning for the 16th Call. Both Sub-Panels met separately by teleconference prior to this meeting and agreed scores and a ranking list of the proposals. This information, along with any specific cuts to proposals, was shared with the DiRAC Technical Manager, [REDACTED], who has been working on a number of scenarios to fit the Panel's recommendations within the availability of resources on the DiRAC systems.
- 1.2. The RAC Preliminary Meeting was held on 27th February where the Panel took a first look at the allocations. Initially when the resources came in, DiRAC systems would be oversubscribed, however Cosma8 and Tursa will get a large upgrade in October meaning there will be more resources available for the RAC15 allocations. [REDACTED]
- 1.3. Non-uniform allocations may need to be applied for some proposals in the first year. Cambridge GPU may not be available for the full allocation; there will be more in phase2 of DiRAC-3 but the numbers are lower than anticipated. Cambridge CPU resource is also oversubscribed, therefore proposals will need to be moved off onto other systems.

- 1.4. Scaling will be applied to all of the proposals depending on the ranking list scores, the scaling will address the over subscription on Dial3, but not entirely address the over oversubscription on Cambridge CPUs and GPUs.

2. Discussion and agreement of final allocation

- 2.1. [REDACTED] has applied an initial set of scaling:

- Proposals scoring 8.51 > receive 100% allocation
- Proposals scoring 8.01 – 8.50 receive 95% allocation
- Proposals scoring 7.51 – 8.00 receive 90% allocation
- Proposals scoring 7.01 – 7.50 receive 85% allocation
- Proposals scoring 6.51 – 7.00 receive 80% allocation
- Proposals scoring 6.01 – 6.50 receive 75% allocation

The scaling alone will not resolve the oversubscription on some of the systems but with the hope of moving some proposals onto other systems [REDACTED]

- 2.2. To address the oversubscription on Cambridge, [REDACTED] discussed moving some of [REDACTED]

[REDACTED] Resources have also been removed from any proposals where overlaps were identified from previous allocations.

- 2.3. There isn't as much Cambridge GPU resource as expected, there will be more available in phase 2 of DiRAC-3 but if any other projects don't use all of their resource the remaining resource will be able to be used. During the first two months (April-May) there will be 38K GPU hours available, from June – August there will be 58K GPU hours available and from September – March there is currently only 27K GPU hours guaranteed but there could be up to 55K, but this won't be confirmed until around August 2023. [REDACTED] contacted some PIs to see whether they could change from Cambridge GPU to Tursa GPU, the responses were generally positive, despite this not being a complete fix. Those happy to move from Cambridge GPU to Tursa GPU were –

- 2.4. Storage disk space is a current issue for DiRAC and they are continuing to agree a user life cycle policy where DiRAC can define how the data should be used and cleared after their work. DiRAC are hoping to fit the storage for RAC15 on once they have done all of the clearing up on the systems. [REDACTED] noted their full allocation may not be available straight away until the clear up has been done, but they will deal with this on a case-by-case basis.
- 2.5. Tursa is geared towards bigger jobs, and normally the smaller node jobs will go to Cambridge. The Panel questioned whether it would be possible to make smaller node jobs available on Tursa.

- 2.6. [REDACTED] to liaise with [REDACTED] to see whether they can move their CPU time onto another system.

Action: Discuss moving to another system with [REDACTED].

- 2.7. The amount left on Cambridge is smaller than [REDACTED], therefore even with the moves they are looking at cuts. The Panel agreed that allocating a small amount of resource at the beginning of a project is better than nothing and then they would be ready for when the full allocation is available.

Action: [REDACTED] will look in the next few days what he can move to Tursa and contact people accordingly.

- 2.8. DiRAC noted that Cosma8 CPU is likely to be available earlier than October and they are hoping for it to be available as early as between May – July. This would give a massive boost to the available CPU hours but will be confirmed as early as possible.

3. **Proposed allocation Astronomy & Cosmology Sub Panel Proposals – Prof Andrew Pontzen**

- 3.1. Prof Andrew Pontzen gave an overview of the proposals submitted to the Astronomy and Cosmology Sub-Panel at the 15th Call. He advised that there was a very high number of proposals in this call which were all of high quality. The proposals have been scored consistently against the assessment criteria and all projects were considered as fundable, except where specific cuts have been identified.

- 3.2. [REDACTED]

- 3.3. [REDACTED]

[REDACTED]

- 3.4. [REDACTED]

- 3.5. [REDACTED]

- 3.6. The following Proposals were referred to the Technical Team for further advice –

3.7. [REDACTED]

3.8. [REDACTED]

[REDACTED]

3.9. [REDACTED]

3.10. [REDACTED]

Action: STFC/DiRAC to remove the conversion factors on application forms for RAC16.

3.11. [REDACTED]

3.12. Wording will be added to the following Proposal allocation letters to confirm the terms of their allocation beyond their current contract end date will be conditional based on their contracts being extended or having an alternative position which will allow for them to make full use of their allocations—

[REDACTED]

Discussion of Management Plans requested from PIs following the Project Reporting meeting (10th January 2023)

3.13. During the Project Reporting meeting there were a number of current Thematic projects which had not submitted a report and were underusing their allocations, therefore the Panel requested that they submit the outstanding report(s) and a management plan to show how they intend to use their allocation for the remainder of their award.

3.14.

[REDACTED]

[REDACTED]

3.15.

[REDACTED]

3.16.

[REDACTED]

[REDACTED]

4. Proposed allocation for Particle Physics and Nuclear Theory – Dr Chris Bouchard

4.1. Dr Chris Bouchard gave an overview of the proposals submitted to the Particle Physics and Nuclear Theory Sub-Panel at the 15th Call. He advised that all the projects were of high quality, covering a good breadth of science. All of the proposals were considered as fundable, and all proposals were scored consistently against the assessment criteria.

4.2. Chris Bouchard confirmed one out of nine of the proposals submitted in the 15th Call were from Early Career Researchers, in comparison to the 14th Call which has three out of ten, so there was a slight dip in this Call. The Panel discussed how they could monitor EDI information however, STFC noted that due to UKRI policies STFC would not be able to share this sensitive data. At present EDI data is not captured for applicants to RAC Calls because the proposals are submitted manually via email, however once the RAC processes move to the new UKRI Funding Service the applicants will be asked for their EDI data in the same way they are asked for this information via JeS.

4.3.

[REDACTED]

[REDACTED]

[REDACTED]

4.4. [REDACTED]

[REDACTED]

5. Agree overall allocation

- 5.1. Once the above actions have been completed, the allocations will be finalised and agreed via email.

6. Allocation of additional resource on Cosma8 and Tursa from October 2023

- 6.1. In November 2022 DiRAC was awarded £9.4M capital funding from the UKRI Digital Research Infrastructure Phase 2 budget for the completion of the DiRAC-3 upgrades at Edinburgh (Tursa) and Durham (Cosma8). This means that there will be additional resources available. Mark Wilkinson provided an overview of the additional resources which will be available from October 2023 and confirmed unlike other years, they will not be carrying out an additional Call this year. There is a 6-month window where these resources will be made available to the community from October 2023 – March 2024 on the Durham and Edinburgh systems. As the additional funding is from the Digital Research Infrastructure budget it has to have a UKRI benefit, therefore some of the resource will be made available on a pilot basis to other UKRI communities, and any resources not used before March 2024 will be DiRAC allocated as usual.
- 6.2. Mark provided allocation options which has been saved on the [Extranet](#), the Panel felt a combination of options 1, 3 and 4 would be most desirable. These are as follows:
1. Include hardware in RAC15 process to relieve any oversubscription pressures.
 3. Rolling discretionary call for large allocations of time.
 4. Use to onboard other non-STFC communities as required by the terms of the funding.
- 6.3. DiRAC was questioned regarding the long-term funding goal and whether they will remain STFC specific. DiRAC noted they have to do what is best for the community and this might mean becoming a UKRI service in the future which would be more secure in terms of funding.
- 6.4. The 6-month period will be considered as a pilot, to show what can be done and then they can find out how much work is required on the DiRAC side and on the community's side in order to onboard other non-STFC communities.

- 6.5. There will be workshops which will be held in June 2023, where all the projects that are likely to be using the allocation will be invited. DiRAC will then be able to get an idea of what their requirements will be.

7. Issues from the 15th Call and Planning for the 16th Call

7.1. Any issues from the 15th Call

7.1.1. Reviewers scoring table

The Panel along with a few Reviewers raised concern regarding the numerical scoring table used in the Reviewers template document, noting it is misleading and the table's format should be changed in RAC16.

Action: Remove scaled table in RAC16 templates for reviewers. Add an alternative table (to be agreed by the sub panels via email).

7.1.2. RSE form

The Panel raised concerns about the RSE forms which DiRAC and the technical team will be looking at before RAC16, it was suggested that it would be useful to get the applicants to contact the DiRAC support team to notify them if they are interested in applying for RSE support.

Action: Add a note to the RAC16 pre-announcement that applicants are encouraged to contact the DiRAC support team if they are interested in applying for RSE support.

7.2. Suggestions for the 16th Call

7.2.1. Page limits / Reviewers

The Panel all agree that the changes made to the page limits and number of Reviewers during RAC15 were of benefit and were received well by PIs and therefore should remain this way for RAC16.

7.2.2. Technical form

The Panel suggested a tick box on the Technical application form to state whether the applicants would like a reduced allocation in the first quarter to allow them to get their project started before a larger allocation is provided in quarter two. As agreed, the DiRAC2.5 – DiRAC-3 conversion factors will also be removed from the form. It was also suggested that there should be a new question to ask whether the applicants could move onto the new DiRAC-3 systems.

Action: Amend the technical application form as detailed above.

7.2.3. Overlaps

The Panel suggested making sure the PI provides clear justification of science to distinguish between previous allocations.

7.2.4. Cross Panel applications

It was suggested that if there are proposals which cover the remits of both Sub-Panels the Introducers should have a discussion ahead of the first sub-panel meeting to ensure they have a clear view of how each sub-panel has viewed the proposal.

7.2.5. EDI questions

The Panel was very positive about the EDI questions which were added in the 15th Call

and would like to see continuous work to push for EDI in RAC16. Discussions will continue within STFC and UKRI as to whether the EDI questions can form part of the formal assessment criteria. STFC note that if the new Funding Service is used in RAC16 there may be more that can be reported on with regards to EDI which will be a positive move in the right direction.

7.2.6. Project Reporting

As mentioned at previous meetings, the timings of the Project Reporting exercise will be considered, along with how this can better link into the next RAC call.

Action: Consider the timings of the Project Reporting exercise and how this can link in with the next RAC call.

8. Panel Membership

8.1. The full term of membership of the Chair of the Astronomy and Cosmology Sub-Panel, Andrew Pontzen, is due to end in October 2023. Heather Ratcliffe's term will also come to an end in October 2023 after 6 years' service. Dimitris Stamatellos' and Katy Clough's membership will be extended until 30th September 2026.

8.2. Antonin Portelli informed the Panel that [REDACTED] during RAC16 and may not be available for meetings and therefore has agreed to step down for RAC16 and continue his membership in RAC17. STFC will find a temporary replacement for Antonin for RAC16 who matches Antonin's science areas.

Action: Find temporary replacement for Antonin for RAC16, Antonin to suggest names of potential replacements.

8.3. For the Particle Physics & Nuclear Theory Sub-Panel the full term of David Colling's membership is due to end in October 2023. Maurizio Piai's term of membership is due to end in September 2023, however Maurizio has decided to extend his membership for a further 3 years.

8.4. All vacancies on the RAC will be advertised in the 2023 Membership Call.


9. Any Other Business

9.1. STFC is hoping for RAC16 to be onboarded onto the new UKRI Funding Service, despite moving in the right direction this is not currently guaranteed but STFC will provide the Panel with updates as soon as they have any further details. If these changes do happen the closing date for proposals will be in September and it was noted that the pre-announcement date will also be bought forwards to allow enough time for applicants to prepare their proposals.

10. List of Actions

	Action Description	Responsibility	Resolve by date
1.	[REDACTED] to liaise with [REDACTED] to see whether they can move their CPU time onto another system.	[REDACTED]	ASAP

2.	[REDACTED] to look into who can move onto Tursa and contact PIs to see whether this is possible.	[REDACTED]	ASAP
3.	[REDACTED]	[REDACTED]	At time of feedback
4.	[REDACTED]	Introducer / [REDACTED]	Award Letter
5.	[REDACTED]	[REDACTED]	ASAP
6.	[REDACTED]	[REDACTED]	ASAP
7.	[REDACTED]	[REDACTED]	ASAP
8.	Remove conversion factors on application forms for RAC16.	STFC / DiRAC	By RAC16
9.	Amend the Technical application form to include a question to ask if applicants are agreeable with a smaller allocation in the first quarter, and a question to ask if applicants could move to the new DiRAC-3 systems.	STFC / DiRAC	By RAC16
10.	[REDACTED]	[REDACTED]	ASAP

11.		STFC / DiRAC RAC	
12.	Remove scaled table in RAC16 templates for reviewers. Add an alternative table (to be agreed by the sub panels via email).	STFC / DiRAC RAC	By RAC16
13.	Add a note to the RAC16 pre-announcement that applicants are encouraged to contact the DiRAC support team if they are interested in applying for RSE support.	STFC	By RAC16
14.	Consider the timescales of the Project Reporting exercise and how this can better link in with the next RAC Call.	STFC	By RAC16