

STFC 2010-11 NUCLEAR PHYSICS GRANTS ROUND

Guidelines for Applicants

Published October 2010

1. Introduction and Timetable

This paper sets out the guidelines for the 2010-11 Nuclear Physics Grants Round. This paper provides specific guidance for the submission of applications. These guidance notes apply equally to both theory and experimental proposals.

Please be advised that even though the Government announced the headlines of the Comprehensive Spending Review outcome on 20th October 2010, STFC does not yet have its budget allocation from BIS, so we need to proceed with caution as we cannot be certain about the impact on our programme.

We are sorry about the uncertainty that this brings but will endeavour to keep you informed about any impact on the 2010-11 grants round as soon as this information becomes available.

The timetable for the review will be as follows:

Closing date for applications	13th January 2011, 4pm
Refereeing process	Mid-January to mid-March 2011
Grant clarification meetings	March – April 2011
Applicants to receive and respond to referee comments	Late April/early May 2011
Peer review meeting	Late May 2011
Outcome announced	July 2011
New grants commence	1 August 2011

2. Grants Structure

- 2.1.** The mechanism for the award of grants is currently the subject of the Grant Mechanism Funding Review <http://www.stfc.ac.uk/News%20and%20Events/19448.aspx>. The outcome of the review is expected to be confirmed in the coming weeks, and we anticipate that the precise mechanism through which funds will be awarded will differ from previous years. We have tried to write this guidance in such a way as to negate the need for any revisions to the case for support, or further requests for information. However, depending on the outcome this may be necessary, and we ask for your patience and understanding in this matter. In your application for future support we are asking you to provide your plans for the next five year period, and the resources you will require for that period broken down by science theme and by financial year, accepting that plans become less definite in the medium to longer term. This should enable

the NPGP to re-cast the final awards to fit in with the revised grants structure. We will communicate the outcome of the review as soon as possible.

- 2.2. In this grants round we will be considering applications for support for **exploitation activities** in Nuclear Physics. This includes: **all resources associated with the exploitation of existing experimental equipment, additional new instrumentation (within the restrictions noted below in connection with Sols), equipment costs that are part of the normal cycle of upgrades/modernisation, support for theory, and core group infrastructure, such as key expertise, technical staff and general lab costs. Visiting researchers may also be requested.** Funds should be requested under the usual fEC cost headings.
- 2.3. The NPGP will not consider applications for **new construction projects** or **major upgrades**, which should proceed first through a Statement of Interest (Sol), to be considered by PPAN. Projects of this nature are not funded through the Nuclear Physics Grants Panel (NPGP). In all cases, applicants must contact the Office prior to submitting an Sol. If you are unsure whether your proposal requires an Sol, please contact the Nuclear Physics programme manager (Katharine.Schofield@stfc.ac.uk) for advice. For more information on Sols, please refer to the STFC website at <http://www.stfc.ac.uk/Our%20Research/4624.aspx>.
- 2.4. The most suitable funding mechanism for **Project R&D** activities and **Feasibility Studies** is a PRD Grant, considered by the PPRP. PRD funding is for projects which develop technology beyond that of laboratory experimentation or modeling and show that the technology can be deployed in a future project; or for demonstration projects which prove the design concept of new equipment (including software) that can then be implemented in a full scale project. Please refer to the specific PRD guidelines on the STFC website: <http://www.stfc.ac.uk/Our%20Research/4621.aspx>. The PRD scheme has recently been reviewed and the changes recommended are expected to be implemented by Autumn 2010. It is anticipated that a call for PRD proposals will follow and funding be made available from April 2011.
- 2.5. Core group infrastructure is defined as the expertise and resource necessary for the continued success of the programme of work, as set out in a group's science strategy. Posts within the core group are normally expected to provide expertise in the areas of experimental development and construction, and/or experimental and computing support including the maintenance and operation of experiments. Technicians may be applied for as core posts. In the case of senior research posts, these may be identified as core if their expertise is essential to the scientific success of the group. Typically, these post holders are expected to have at least 5 years postdoctoral research experience.
- 2.6. Core group infrastructure may also include posts which are needed as cross-community support. Such posts are likely to provide engineering and

technical expertise, such as electronic engineers, mechanical designers, software support, and target makers. If the posts are to be used cross-community, it must be demonstrated in the case for support that there is a community wide need for the skills and expertise of this post, and funding is contingent on this case being accepted. A plan of the projects in which the post is likely to be involved should also be supplied, accepting that this is likely to be less certain in the medium to longer term. It is anticipated that the Management Committee will continue to manage and prioritise the activities of cross-community posts.

- 2.7.** Applications from STFC Labs such as Daresbury Lab will be dealt with by the same process as, and in competition with, those from Universities.

3. Grant Applications

- 3.1.** All applications should be submitted online using the Je-S system. For any queries relating to Je-S, please contact the Je-S helpdesk directly by email at JeSHelp@rcuk.ac.uk, or by phone on +44 (0)1793 44 4164. It is the responsibility of the PI to ensure their institution's administration department submits the proposal before the submission deadline.

3.2. What funds can be applied for?

- Core posts, for example essential investigators, engineers and technical staff (required either exclusively within the group or across the community) ;
- Investigator time associated with research programmes, including supervision of RA posts;
- Post Doctoral Research Assistant posts;
- New equipment (within the restrictions noted in connection with Sols),
- Upgrades/modernisation to existing equipment;
- General lab costs, including consumables, running costs and computing infrastructure;
- Travel and subsistence;
- Project Studentships;
- Visiting Researchers;
- Generic blue skies R&D work may be included, but if it is aimed at a particular project it should be submitted as a PRD Grant application: in case of doubt please contact the Office;
- Other Directly Incurred and Directly Allocated costs as detailed in the fEC Research Grants Handbook;
- Estates and Indirect costs.

4. Writing a Case for Support

- 4.1.** The case for support to accompany the Je-S form must contain the following:
- Section 1: Report on STFC-funded research carried out since 1 August 2008, and the proposed future programme;

- Section 2: Productivity record;
- Section 3: Other Information;
- Staff details form;
- Pathways to Impact.

The requirements for each section are detailed below.

4.2. Section 1: Report on STFC-funded research carried out since 1 August 2008, and the proposed future programme.

This should provide a concise report on the scientific and technical progress of the group since 1 August 2008, and detail the future programme. Section 1 should include the following:

Executive Summary of group's activities and strategy. Section 1 should begin with a summary of the group's activities and strategy for the future. Reference should be made to the support your institution provides to your group, with emphasis on recent investments that are relevant to the research programme. If relevant, you should also refer to any future PPRP proposals expected to be submitted over the next five years. The Executive Summary should be no more than two pages (min 10pt type).

Theme reports: for each theme, you should provide **(a)** a report on the work carried out since 1 August 2008, **(b)** a science case for the group's future plans, and **(c)** a breakdown and justification of the resources requested for the continuation of the theme. If the group currently holds a rolling grant, you should refer to the funded themes on the rolling grant.

Part (a) should explain if there have been any major changes to the programme compared with the original plans, and provide an assessment of the extent to which the major aims have been met.

Part (b) should set out the science case for the continuation of the work over the period 1 August 2011 – 31 July 2016, and should address the following:

- i. What are the major goals and scope of the programme?
- ii. How will this programme advance the field?
- iii. How does this programme fit within the international context?
- iv. Explain how the main highlights/achievements of related previous research since 1 August 2008 relate to the proposed programme of work.
- v. What methodologies and techniques will be applied to the research, and which facilities will be required to achieve the programme aims?

Parts (a) and (b) should be no more than three pages (10pt type) in total.

Part (c) should provide a justification of resources for the programme set out in (b). This should comprise a breakdown by financial year of staff resources for a five year period, and non-staff for four years.

Non-staff resources should be separated out by fund heading (T&S, Consumables, Equipment, etc) and itemised where possible (approximately two pages).

Staff resources: Please list all the posts involved with the FTE fraction spent on that programme, indicating whether the post is core or cross-community, in the format:

Post	Core? X-community?	Expected FTE fraction					
		FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17

This should match the information provided in the Staff Details Form. For each post in the table, a narrative justification of the level of effort requested in terms of their specific activities in the programme of work should be given (approximately half a page per post). Biographies and CVs are not appropriate for this purpose. The level of experience and skills required for each post should be justified. For non-academic staff, applicants should describe their role in the research programme in terms of their specific skills and activities, and describe any non-publication related scientific output.

If cross-community expertise is required, applicants should justify the level of support required. Evidence that the applicant has consulted with the relevant Head of Group and the Management Committee should also be provided. Applicants should contact the Chair of the Cross Community Management Committee, Prof Bob Wadsworth (rw10@york.ac.uk) in the first instance with details of the cross community expertise required by their proposed programme of work.

Project studentships must be justified in terms of the potential enhancement to the research programme, and a viable PhD project should be defined, in half a side of A4.

If a Visiting Researcher is requested, please enclose a CV of the proposed visitor as an appendix to the case for support, and a justification of the request in terms of their scientific role in the proposed research, in half a side of A4.

The length of part (c) will depend on the number of posts.

New themes: for any new activities or initiatives, a science case must be set out as described in **(b)** above, making reference to the applicant's previous work in the field (if relevant), in no more than three pages (10pt type). The level of resource should be justified as described in **(c)** above.

List of references: A common list of any references used in Section 1 should be provided. This list is supplementary to Section 1 and is not counted in the page limits.

4.3. Section 2: Productivity record

A record of the each investigator’s and named RA’s productivity over the past three years, (dating from 1st January 2008), in the following format:

Investigator/Named RA	Number of refereed publications	Number of lead researcher publications	Number of technical reports	Number of first author technical reports
A.N. Other 1				
A.N. Other 2				

1. Note A.N. Other 2 was on maternity leave from July-Dec 2008, thus we are using the intervals July 2007-June 2008 and Jan 2009- Dec 2010.

Only refereed publications should be included in the table. Experimental proposals and conference proceedings of any sort must **not** be included in the first two columns. The second column, ‘Number of lead researcher refereed publications’ should be the subset of publications from the first column in which the investigator/named RA has led the research – i.e. was spokesperson/co-spokesperson for the experiment, or was supervisor of the first named author (PhD student or PDRA). Normally only one lead author should be identified per publication (i.e. double counting in the second column should be avoided). Under the heading ‘technical reports’ in the third and fourth columns, it is permissible to include conference proceedings only from Nuclear Instruments and Methods and IEEE Transactions; no other conference proceedings should be counted in the statistics, nor should experimental proposals. In the case where there is a justifiable career break such as a period of maternity leave, or extenuating circumstances, please detail the most recent three years of active research as shown above.

Full list of publications: To supplement these data, a full list of publications for each investigator and named RA from calendar years 2008-2010 with titles, full author lists as they appear in the journal, and a reference should be provided. These may be produced using, for example, the Web of Science (where publications lists can be created in a number of useful text formats) or Nuclear Science References (NSR). Those in which the investigator/named RA has played a leading role, as defined above should be clearly indicated. If possible, all references should be accompanied by a Digital Object Identifier (DOI) for ease of location of the article.

4.4. Section 4: Other Information

The following information should also be provided:

- (a) An explanation of any expenditure which has resulted in a variation of 20% or more against the funds awarded against each heading in the original announcement.
- (b) Non-NPGP and non-STFC support: Please give a brief overview of the group's support from other sources. Examples might include Project or PRD grants, IPS funding, EPSRC grants, STFC or other Fellowships.
- (c) Concordat to support the Career Development of Researchers: The applicant is required to report on how the concordat is being implemented within the context of the group.

4.5. Staff details form

This form has been produced in Excel. Please note that the columns are by financial year (i.e. April to March). You are asked to complete the forms, and email them to jane.mckenzie@stfc.ac.uk.

This form is in two parts which combine together to show the future plans of the group.

Part 1 requires a list of all the experimental, theoretical and R&D programmes in which members of the group will be involved over the period of the grant. This should include construction projects (e.g. NuSTAR), and other programmes (e.g. IPS, PRD, EPSRC grants) in which group members are involved, or plan to be over the next five years. For each programme, please indicate in the second column the principal facility or facilities required. In the third column please indicate whether the programme is ongoing (i.e. currently funded), or planned (i.e. not yet funded).

Part 2 is intended to give the NPGP an indication of how the focus of effort for each staff post will change through the period of the grant. The blocks given on the spreadsheet should be copied to allow an entry for each staff member (existing and requested) in the group, including, non-STFC funded members of staff. Project students requested in this application should be included, but project students on other grants and DTA (quota) students may be excluded. Each staff member should have a line for each of the activities as described in Part 1 in which they are involved. The column headed 'Programme' may use the number corresponding to that activity as listed in Part 1. The effort should be given as the percentage FTE. Please indicate the FTE being requested on the new grant (under the column headed 'New Request'), and the FTE to be supported through other sources (under the column headed 'Other'). Other sources may include current or planned projects, and other existing or future grants funded either by STFC or other bodies. It is appreciated that the figures in the 'Other' column will be best estimates. The 'New Request' column should match the figures provided in the Theme Reports of Section 1. The first and last years are partial years (August 2011 – March 2012 and April 2017-July 2017 respectively). Do not

scale the FTE percentage to account for this – e.g. if you plan to spend 10% of your time on activity X from the start of the new grant, enter 10% in the first column, not 6.6% which would be the average over the full 12 month period of FY 11-12.

4.6. Pathways to Impact

A Pathways to Impact document is required for all new grant applications and should be uploaded to the Je-S proposal as a separate attachment. The Pathways to Impact document is an opportunity to describe how the potential impacts of the research will be realised. For more information on completing the document, see section 5.8 of the Research Grants Handbook <http://www.stfc.ac.uk/rgh/rghDisplay2.aspx?m=s&s=166>. This document will be assessed by STFC staff from relevant departments rather than the NPGP and therefore should be able to be assessed on a standalone basis.

5. Assessment criteria

The following criteria will be used in the assessment of all proposals, and should be borne in mind when writing the case for support. The criteria fit into three main categories:

Category 1: Absolute pre-requisite, without which an application will not be considered for funding.

- Scientific Excellence
- International Competitiveness
- Strategic value within STFC programme

Category 2: Supporting evidence which increases the confidence in a successful outcome:

- Productivity of Investigators
- Productivity of grant supported staff
- Quality of leadership/management
- Suitability of institution/group

Category 3: Important additional criteria the opportunities and plans for which must be addressed in the Pathways to Impact document:

- Potential for knowledge exchange
- Quality of outreach plan

6. Assessment

The NPGP will apply a uniform procedure when assessing proposals. All proposals will be assessed on scientific merit and within a broad policy framework set by the Council. There is no formal ring fencing of funding for theory, which will be considered alongside and in competition with

experiment. In drawing up the priority lists the proposals will be rated as follows:

Fundable

The proposed research is of the highest scientific merit. It is novel and/or timely and has such potential that it will, or is likely to, make a significant contribution to world nuclear physics or is at the forefront of UK nuclear physics and is internationally competitive. The case for support demonstrated that the proposed research is feasible, well planned and cost effective.

Unfundable

The science case is not compelling. The proposed research lacks originality and is not critical to any new understanding of the subject. It is either too removed from STFC's strategic plan to be funded or is not scientifically competitive.

Reject

The case for support has not been accepted for one or more of the following reasons:

- The science case is technically flawed;
- The case for resources (e.g. PDRA and other costs) has not been made;
- The proposal is premature.

7. Referees

STFC will seek at least three referee reports for each proposal. Referees will be anonymous, and applicants must inform STFC if there is any referee who would be expressly unsuitable for the role. In such cases, adequate justification must be given, which will be treated by STFC in the strictest confidence. Applicants may also nominate one referee, which the NPGP will take into consideration but the use of which is not guaranteed. Nominated referees must not be collaborators, neither should they be from the applicant's or collaborator's home organisation.

8. Process

The NPGP will consider the grant proposals in conjunction with the referees' reports and with strategy advice from STFC. Further clarification of issues arising from grant application is likely form part of the assessment process, which may involve face-to-face meetings or teleconferences between assessors and applicants. If such a meeting is required, it will consist of no more than three panel members (plus office support). The NPGP will meet to review all the proposals, and will make recommendations to the Executive. Feedback will only be provided to applicants by the STFC Office once the grants application cycle has been completed.

9. fEC

Details of all the requirements and the terms and conditions of research proposals under full economic costing (fEC) principles can be found in the fEC grants handbook: <http://www.stfc.ac.uk/rgh/rghHome2.aspx>. Those involved in the preparation and submission of grant proposals must familiarise themselves with the handbook.

10. Costings

All costs that contribute to the full economic costs (fEC) of the proposal should be included. All costs should fall under one of the following four cost headings.

(a) Directly Incurred (DI): These are costs that are explicitly identifiable as arising from the conduct of a project, are charged as the cash value actually spent, and are supported by an audit record. They include:

- Staff (possibly including investigators)
- Travel & subsistence
- Equipment
- Other Directly Incurred costs

(b) Directly Allocated (DA): These are the costs of resources used by a project that are shared by other activities. They are charged to projects on the basis of estimates rather than actual costs and do not represent actual costs on a project-by-project basis. They include:

- Investigators (named posts only)
- Estates
- Other Directly Allocated costs

(c) Indirect costs: These include non-specific costs charged across all projects based on estimates that are not otherwise included as Directly Allocated costs. They include the costs of the Research Organisation's administration such as personnel, finance, library and some departmental services.

(d) Exceptions: costs that are paid at 100% of fEC (subject to actual expenditure), or which are outside fEC.

11. Cost revision following review

At the NPGP review of the grants, if a reduction is recommended in resources on a proposal, STFC is required to return the application to the Research Organisation to re-calculate estates and indirect costs. There will be a ten working day period in which to do this. The request will be made to the administrative group by whom the proposal was submitted. If the amended submission is not received within the ten working day timescale, STFC will

amend the award on a pro-rata basis in line with the reduction or increase in research staff effort awarded.

12. NPGP Organisational Structure

The NPGP comprises 10 members:

Dr David Ireland (Glasgow) - Chair
Prof Angela Bracco (Milan)
Prof Alison Bruce (Brighton)
Prof Jacek Dobaczewski (Warsaw)
Prof Martin Freer (Birmingham)
Dr Alex Murphy (Edinburgh)
Prof Robert Page (Liverpool)
Dr John Smith (UWS)
Dr Paul Stevenson (Surrey)
Prof Phil Walker (Surrey)

The panel's role is to:

- Assess and make recommendations to the STFC executive on research grant applications in nuclear physics.
- Take account (as appropriate) of the recommendations of external referees and the conclusions of specialist peer review panels. The latter may be convened by the executive to advise on Rolling Grants, contiguous groups of research requests, or research requests which are judged (on the basis of cost or propriety) to warrant such separate, in-depth assessment.
- Advise the Particle Physics, Astronomy and Nuclear Physics Science Committee (PPAN) and the executive as required on all issues relating to research grants, including monitoring the level of funding allocated to grants.
- Carry out such other tasks associated with peer review as the executive might require.

13. Contacts

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