



Consolidated Grant 2019

*Nick Evans
PPGP(7) Chair*

The Funding Environment

Flat funding...

Funding levels for Particle Physics Theory between 2007 and 2020

STFC Theory Programme (£k)	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
A. Theory Exploitation													
Rolling Grants	2,249	3,890	5,706	5,239	2,508								
Standard Grants	363	449	624	601	346	72							
Other	48	57	15										
Consolidated Grants					2,244	4,669	4,856	4,995	5,165	5,102	4,676	4,959	5,084
Total	2,660	4,396	6,345	5,840	5,098	4,741	4,856	4,995	5,165	5,102	4,676	4,959	5,084
% of Programme	76	85	80	79	77	75	75	75	75	75	73	75	76
B. IPPP	821	796	1,563	1,518	1,558	1,589	1,587	1,584	1,610	1,632	1,656	1,587	1,489
% of Programme	24	15	20	21	23	25	25	24	23	24	26	24	22
C. INI - Isaac Newton Institute								100	100	100	100	100	100
% of Programme	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.6	1.5	1.5
Theory Programme (A+B+C) Total	3,481	5,192	7,908	7,358	6,656	6,330	6,443	6,679	6,875	6,834	6,432	6,646	6,673



^[1] In 2011-2013, support for High Performance Computing was funded through the particle physics theory exploitation grants.

From 2013 the costs for High Performance Computing have been funded separately from the PPT consolidated grants.

^[2] The INI receives the majority of its funding from EPSRC; however STFC has provided a contribution of £100k per annum.

Size of UK PPT Community

Consolidated Grants	2005	2008	2011	2013	2016
Number of Academics requested	122	155	163	176	186
Number of Academics awarded	-	-	146	161	134
Academic average FTE awarded (among non-zero awards)	-	20%	14%	16%	13%
Unfunded Academic posts per total requested posts	-	-	11%	12%	28%
Number of PDRAs per year (FTE)	34	34.3	29.2	28	32
Ratio of PDRAs to funded Academics	-	-	0.20	0.17	0.24
Ratio of requested PDRAs to academics	0.28	0.22	0.18	0.16	0.17



Balance of PPGP(T) Programme by PDRA FTE excluding IPPP (Percentage of Programme)

Subject Area	2005	2008	2011	2013	2016
	Awarded	Awarded	Awarded	Awarded	Awarded
Cosmology	6 (18%)	4.7 (14%)	3.8 (13%)	3.1 (11%)	5.4 (17%)
Lattice	7 (21%)	5.3 (16%)	5.2 (18%)	4.2 (15%)	5.0 (16%)
Phenomenology	6 (18%)	10.5 (30%)	9.4 (32%)	9.4 (34%)	9.6 (30%)
QFT	5 (15%)	4.5 (13%)	5.2 (18%)	5.6 (20%)	6.7 (21%)
Strings	10 (28%)	9.3 (27%)	5.6 (19%)	5.7 (20%)	5.3 (17%)
Total	34	34.3	29.2	28	32

The Panel (Particle Physics Grants Panel (Theory))

Nick Evans, Southampton (Chair)

Richard Ball - Edinburgh

Frank Krauss - Durham

Antonio Rago - Plymouth

Matthew Wingate - Cambridge

Gabriele Travaglini - Queen Mary

Carlos Nunez – Swansea

Malcolm Fairbairn – KCL

Claudia de Rahm – Imperial

+ 2 from experimental panel

Review of Particle Physics Theory 2017 - Guidance

...main threat is the critically low number of PDRA posts...

...considered options for mitigating the low number of PDRA's within a flat cash programme but considered that these would have a severe impact on academic support.

In a flat cash scenario, the Panel reluctantly recommended maintaining the number of PDRA's and decreasing the average level of FEC for academic staff...

(Increased University overheads.... PPGP(E) has raised this as an issue and it is being escalated in STFC and UKRI...)

...noted the importance of maintaining support for travel and visitor funds on consolidated grants especially where there are low PDRA numbers...

...considered that it was important to maintain the breadth of the programme, especially in a constrained funding environment, as the programme areas are intimately linked and positively reinforce each other... We will have “subject area champions” in the panel...

... recommend that the PPGP(T) continue to support a small amount of high risk, high reward research aimed to produce future breakthroughs in PPT...

...appropriate mechanisms for research which falls across PPT and astronomy remits, to ensure that collaboration is encouraged and supported, for example: cross-Panel membership, appropriate reviewers...

...recommends that the PPGP(T) monitor the development of theoretical activity in gravitational waves to ensure that funding is appropriately coordinated...

...recommends that leadership of international workshop panels continues to be recognised and encouraged by PPGP(T)...

...recommend that the UK PPT community should continue to be fully engaged with the forthcoming update of the European Strategy and planning for Particle Physics. Beyond that, STFC should support and encourage wider UK participation in future collider initiatives...

Panel Process

As a panel we will build on the successful processes from previous years...

Subject area referees – motivates rejigging of application ordering
3 days of deliberation by the panel – panel process complete by end of June.

Group and subject area “champions” will watch balance of programme...

New metrics to allow us to balance quality equally in different sized subject areas...

In choosing your Science Areas the key question is whether the science can reasonably lie in the expertise of a single referee... size should not be a guide...

Citation data: we have asked for hyperlinks to personal INSPIRE pages – this is not to add extra weight to citation data but to allow easy access to *reduce* time spent on it..

Given the tight funding the process is going to be “robust” and potentially “volatile”..

We will try to ensure it is fair!!

IPPP & Virtual Centres

The Review Panel considered the IPPP to be very successful in its mission as the National Phenomenology centre and for its research programme.

To maintain the internationally leading strength of the QFT, Strings and Cosmology themes, the panel recommended the creation of a self-organising virtual QFT/String centre and a similar Cosmology centre which would act to bring these parts of the UK community together.

Bids For Virtual Centres:

- Try to include many Institutes & have strategic goals..

- Will be able to speak for community eg to STFC reviews...

- £10sk possible for annual meetings

 - associateship like exchanges

- Role in coordinating Xmas Meeting (in conjunction with IPPP)

 - value for money from Newton Institute

 - EU(!), GCRF... bids

*Merry
Christmas*

