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Professor David Delpy FRS Chief Executive EPSRC Polaris House North Star Avenue Swindon SN2 1ET

20 December 2011

Dear David

## **EPSRC Postdoctoral Fellowships**

We are writing to you following the EPSRC's announcement, in a letter to Heads of Departments on 28 November, of additional areas where fellowship applications in the mathematical sciences can be submitted, and of parallel changes to the Doctoral Prize Scheme.

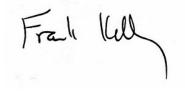
Following this announcement the Council for the Mathematical Sciences (CMS) would like to register its major continuing concerns about the scope and operation of EPSRC Fellowships and other schemes to support early career researchers in the mathematical sciences. If the changes introduced in 2011 are allowed to persist they will threaten the health and continued excellence of the discipline.

Our particular concerns can be summarised under the following headings. We provide detailed arguments under each heading in the Appendix following this letter.

- 1. The letter of 28 November offered **no expansion whatsoever of Postdoctoral Fellowships**. At the postdoctoral career stage it simply maintains the restriction to statistics and applied probability introduced earlier in 2011.
- **2**. **Changes to the Doctoral Prize Scheme** announced on 28 November **are not a panacea** for the inadequate support for emerging postdoctoral mathematical scientists.
- **3.** Data recently provided by EPSRC in support of their policy changes for fellowships is wrong in a number of respects.

Mathematics underpins our 21st century technology, economy and society. As we have stated previously, fellowships at the postdoctoral level provide a rare opportunity for the future leaders of the discipline to develop independently, and the lack of opportunity across a broad range of mathematical science topics will disadvantage the UK's emerging postdoctoral mathematical scientists. This will in turn lead to a decline in interest in PhD study amongst our most talented mathematical science undergraduates, with adverse consequences for the number of highly skilled UK-educated mathematical scientists available to industry, academia and as teachers. The EPSRC must recognise the importance of the mathematical sciences and provide the necessary funding opportunities to maintain the flow of skilled mathematical scientists.

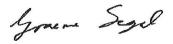
## Yours sincerely



Professor Frank Kelly FRS, Chair, Council for the Mathematical Sciences



Professor Michael Walker OBE, President, Institute of Mathematics and its Applications



Professor Graeme Segal FRS, President, London Mathematical Society



Professor Valerie Isham, President, Royal Statistical Society



Professor Mark Chaplain, President, Edinburgh Mathematical Society



Professor Richard Eglese, President, Operational Research Society

c.c. Philippa Hemmings, Lead, Mathematical Sciences Capability Delivery, EPSRC

c.c. Lesley Thompson, Director, Research Base, EPSRC

## **APPENDIX**

- 1. No expansion in Postdoctoral Fellowships. Recent correspondence from EPSRC to the community has repeatedly elided the differences between postdoctoral fellowships and other forms of fellowship support. We recall once again that postdoctoral fellowships¹ formerly had to commence within 3 years of the PhD viva, and that the fellow could not hold or have previously held a permanent academic position. However, under the new approach² these explicit rules are completely removed there is no restriction on time from PhD, and no requirement regarding academic posts. Worse still, the extensions to the fellowship scheme announced in the letter of 28 November are for "early and established career" researchers, and so are explicitly aimed at those well beyond the immediate postdoctoral phase, as can be seen from the "Person Specification".³ Thus EPSRC's actions with regard to fellowships in the mathematical sciences, both in the summer of 2011 and now with Phase 2 of "Shaping Capability", completely fail to address the problems with the career pipeline highlighted by the 2010 International Review of the Mathematical Sciences⁴ rather, the actions taken greatly exacerbate the problem.
- 2. **Doctoral Prizes Scheme:** The letter of 28 November to Heads assures them that this new scheme is "broadly cost neutral". In the absence of more detail it is not clear how this will be achieved, since funds will come from each institution's DTG. There appears to be no incentive for an institution to direct funds away from the support of PhD students towards the new scheme, noting the existing incentives towards maximising the latter from the REF.
- 3. EPSRC data on Fellowships. Data quoted by the EPSRC in support of its position on postdoctoral fellowships (for example to the House of Lords Science and Technology Committee) compares the 10 postdoctoral fellowships in mathematics that the EPSRC funds with at least 370 fellowships available to the mathematics community. This comparison elides the differences between postdoctoral fellowships and other forms of fellowship support, and compares fellowships available in mathematics with fellowships available across a wider spread of disciplines. For example, ERC starter grants are not available to new PhD graduates. EPSRC is indeed a major provider of postdoctoral fellowships in the mathematical sciences, as is to be expected of the main UK research funder of the mathematical sciences.

<sup>1</sup> http://www.epsrc.ac.uk/funding/calls/2010/Pages/fellowships.aspx

<sup>&</sup>lt;sup>2</sup> http://www.epsrc.ac.uk/SiteCollectionDocuments/other/EPSRCFellowships-ANewApproach.pdf

http://www.epsrc.ac.uk/SiteCollectionDocuments/other/EPSRCFellowships-ANewApproach.pdf

<sup>&</sup>lt;sup>4</sup>http://www.epsrc.ac.uk/SiteCollectionDocuments/Publications/reports/InternationalReviewOfMathematicalSciences.pdf - Section 16.