**Further Mathematics Support Programme** 

www.furthermaths.org.uk



Managed by MEI Innovators in Mathematics Education

### Working with the Further Mathematics Support Programme

## EPC Recruitment and Admissions Forum 4 November 2013

Andrew Ramsay

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# About the FMSP



- The FMSP was created by Mathematics for Education and Industry with funding from the Gatsby Foundation
- Following a successful pilot, the Further Mathematics Network (FMN) was established in 2005 to ensure that all who could benefit had access to Further Mathematics
- The FMSP followed on from the FMN in 2009 and is managed by the same team of people at MEI who set up and ran the FMN





- □ The FMSP works directly with teachers and students
- via 29 local Area Coordinators
- to improve mathematics provision for 14-19 year olds and
- to promote uptake of post-16 mathematics, including Further Mathematics

### How we do it



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- Tuition: face to face
  - FMSP Tutors
- **D** Tuition: online
  - Integral (web) Resource
  - Live Interactive Lectures
- Teacher Support
  - Live Online Professional Development
  - Teacher Networks
  - Courses: Teaching A level Mathematics; Teaching Further Mathematics
  - Key Stage 4 extension and enrichment CPD
- Enrichment, including:
  - Senior Team Mathematics Competition
  - Year 10 Mathematics Competition
  - Student and teacher problem-solving
- STEP and AEA support

### Results



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Since 2003...

- Annual number of Further Mathematics A Levels achieved is up by 160% (from 5315 to 13821)
- In the same time Mathematics A Levels are up by 74% (from 50602 to 88060)

A Level FM entries are now ahead of law; music; ICT; and computing Nearly 70% of all state secondary schools now offer it

- Annual number of Further Mathematics AS Levels achieved up by 570% (from 3371 to 22601)
- □ In the same time AS Mathematics is up by 136%



 $-20^{2} 20^{4} 20^{5} 20^{6}$ 

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JCQ



Growth in institutions offering Further Mathematics



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Source: DfE

### Stakeholder Views



The programme is expanding and has excellent national and regional leadership. The open days that expose further maths students and prospective students to some of the frontiers of mathematics and its applications are an important feature of the project.

#### Professor John Barrow FRS University of Cambridge

The continued expansion and success of the programme, including valuable CPD for teachers, means that we get up to ten applications for each of our places with almost all having taken the full A-level. ....We are currently making our first year lectures more even challenging as a result. So the FMSP has supported our university teaching.

#### Dr Robert Bowles University College London

It was noted that the numbers of entries in both Further Maths and Maths "A" levels were steadily increasing over the period and FMSP was acknowledged to be a key factor in this success. Not only were more pupils enabled to study further maths but by supporting maths teachers more generally the quality of maths teaching has undoubtedly been enhanced.

Dame Julia HigginsChair ACME2008-2012

### What FMSP can provide for you



- Publicity to attract students with good mathematics skills
- An excellent way to ensure the supply of good students continues to expand
- Contacts in schools via the Area Co-ordinators
- Advice on the school mathematics curricula



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### The FMSP already works with many universities:

Bath, Birmingham, Cambridge, Canterbury, Derby, Durham, Essex, Exeter, Greenwich, Hull, Imperial College, Lancaster, Leeds, Leicester, Liverpool, Loughborough, Keele, Kingston, Manchester, Newcastle, Nottingham, Northampton, Oxford, Plymouth, Royal Holloway, Southampton, Surrey, Sussex, UCL, UEA, UWE, Warwick, Wolverhampton

## Encouraging FM



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University of Birmingham:

Further Mathematics A level or AS level is an excellent preparation for many degree programmes, not just mathematics, and we strongly encourage you to take it if it is available to you. Approximately 40% of our intake had Further Mathematics A level or AS level.

We typically make a slightly lower offer to students taking A2 Further Mathematics.

Taking Further Mathematics will mean that you have a much better idea of what to expect from our degree programmes because you will have already seen more mathematics.





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University of Birmingham:

We are aware that some schools are not able to offer Further Mathematics and so we do not make it a requirement of our offers.

Our first year programmes are, therefore, carefully designed to take into account the different qualifications that students arrive with.

If Further Mathematics is not available at your school, you may be able to take it through the Further Maths Support Programme. For more information, go to www.furthermaths.org.uk





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#### Visit furthermaths.org.uk

#### Meet with Richard Lissaman and Kevin Lord today