

From the Chief Executive

After some 20 years of writing to you through the MEI Newsletter, I now find myself making my last contribution; the next newsletter will be in September and by then Charlie will have taken over as Chief Executive.

Throughout those years a common theme has been trying to limit the damage that government and its agencies are doing to mathematics in schools and colleges, and in this MEI teachers have often been successful. So, it seems fitting that I should end by warning you of the likelihood of another online consultation about A Levels, probably starting in May. If and when this happens, we will put a suitable commentary on the MEI website. The most recent proposals that I have seen would be very harmful, but for reasons that may not be immediately obvious. So do please watch out. It will be very helpful too if you forward our paper, when it comes out, to other mathematics teachers, whichever specification they are following.

My final day is August 31st and then I will have been working for MEI for exactly 20 years. This is a little longer than Jo who will be retiring a month before me after 19 years and a few months. We would both like to take this opportunity to say good-bye and thanks for all your help over such a long time. And good luck to Charlie and the rest of the MEI team !

Roger Porkess

The A* grade in A level Maths and Further Maths

This summer sees the first awarding of the A* grade in A level Mathematics and Further Mathematics. The A* grade in A level Mathematics will be awarded when a student averages 90+ uniform marks for C3 and C4, as well as averaging 80+ marks over all six units. In Further Mathematics an A* will be awarded to students who average 90+ uniform marks for three A2 units within their A level FM, as well as averaging 80+ marks over all six units in their A level FM.

The A* is rewarding accuracy in using standard A level techniques to solve standard problems and so is a poor means for universities to identify students with a flair for mathematical problem solving. Nevertheless, some universities are asking for it and we have already had reports of students who have dropped Further Mathematics in order to concentrate on getting an A* in Mathematics, which is clearly absurd.

Both the Advisory Committee for Mathematics Education (ACME) and the Council for Mathematics Sciences believe that to identify very mathematically able students a separate paper such as AEA or STEP is required, alongside Maths and Further Maths. These papers involve unstructured questions and allow students appropriate thinking time. MEI strongly endorses this view.

If you have students who have received offers asking for an A* in either A level Mathematics, or A level Further Mathematics, please let me know.

Charlie Stripp

A Level exams

Printed answer books are already used in the D1 and C1 modules. As exam marking moves to being on screen, this will be extended to other modules; C2, M1 and S1 from June 2010. Sample answer books have been provided by OCR and are available on the A Level papers page on the MEI website.

The timetable for all GCE examinations is changing. The slots for A level Mathematics have changed for June 2011; one effect of this is that examinations start earlier than in previous series. OCR have consulted with us before deciding what changes to make to the pattern of examinations; we have tried to avoid having A2 examinations with large numbers of candidates before half term. Please look at the provisional timetable here http://www.ocr.org.uk/administration/timetables_key_dates/general.html The deadline for comments about the provisional timetable is

30 June 2010.

Stella Dudzic Programme Leader (Curriculum)

Further Mathematics Support Programme

Enrichment events for KS4 students

If you haven't yet signed your students up for an FMSP Key Stage 4 enrichment day this summer, please check the FMSP website for details of our national programme of events, including information on how to book places.

Revision days for AS/A level Mathematics and Further Mathematics in your area

The FMSP has an extensive programme of revision days across England for this summer's examinations, often hosted by universities. Please check the FMSP website for details. Teachers report that the days are not only valuable for students; they can also provide valuable CPD for teachers.

CPD

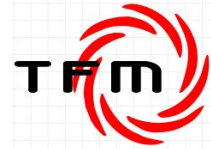
CPD through the FMSP includes face-to-face day courses, live online courses and an extended 'Teaching Further Mathematics' course. FMSP courses cater for teachers of A level Mathematics and Further Mathematics, and teachers of mathematics within the level 3 Engineering Diploma. The courses address both subject knowledge and pedagogy. There is also funding available from the NCETM for teacher support networks and teacher projects aimed at Further Mathematics teachers. Please see the FMSP website for details, or contact Sue de Pomerai.

Charlie Stripp

Programme Leader, The Further Mathematics Support Programme, www.furthermaths.org.uk

Teaching Further Mathematics (TFM) course 2010

We are now taking applications for TFM 2010, which will run from July 2010 until September 2011.



The TFM course covers the Pure Mathematics content of A level Further Mathematics for all four English examination specifications. Teachers enrolled on the course will receive a textbook for each unit, online tutorials, email support from the unit tutor and a username and password which will enable them to access the MEI online resources for the Further Pure Mathematics modules for **all specifications** as well as material written specifically for the course and accessible only to course participants. There will be three study days spread across the year. TFM can also be studied as part of a Postgraduate Certificate in Teaching Further Mathematics, worth 60 CAT points at Masters level, through the Institute of Education, University of Warwick.

The closing date for applications is **17th June 2010**. Further information and an application form can be downloaded from the Further Mathematics Support Programme website http://www.furthermaths.org.uk/teacher_area/tfm.php or by following the CPD link on the MEI website.

Quotes from TFM course participants

"I have found the whole course excellent, interesting and helpful. It has been well organised and all tutors and administrators have been exceptionally good"

"I thoroughly enjoyed being able to do some maths and tie this in with teaching ideas."

If you need any further information please contact me.

Sue de Pomerai (sue.depomerai@mei.org.uk)

Support for prospective Cambridge undergraduates through MEI

This year the University of Cambridge's widening participation department is funding MEI to provide access to online resources for students from the state sector who hold offers from Cambridge specifying Further Mathematics, and to provide online tuition to students from the state sector who hold offers from Cambridge specifying STEP.

Charlie Stripp

Teaching Advanced Mathematics (TAM)

The Teaching Advanced Mathematics (TAM) programme is now inviting applications for course commencement in June. All teachers who have expressed an interest by filling in the short form at <http://www.mei.org.uk/tam> are now offered on-line lessons in May and June in our Elluminate virtual classroom, looking at topics met at GCSE and developed in AS Core.

One teacher on the current course writes:

The TAM course has provided me with the support, inspiration and confidence I needed to deliver Advanced Level Maths for the first time. By participating in the Elluminate sessions and University days I have been able to steal fantastic ideas for delivering new concepts, and the website has a huge selection of resources that my students found engaging and, more importantly, challenging.

I would recommend the course to all who wish to provide an engaging, challenging and dynamic learning experience for their A-level students. Both new and experienced teachers alike will definitely find the programme beneficial.

If you or any of your colleagues are interested, please fill in the form at <http://www.mei.org.uk/tam>

CPD in your school/college

Please remember that the MEI team are available to come into your school or college to run CPD courses tailored to meet your needs. Details can be found at <http://www.mei.org.uk/hostingcpd>

Bernard was recently invited to a school whose mathematics department's results were falling behind those of other departments. After spending two days observing lessons and meeting with the departmental management team, Bernard made recommendations of areas for development. The report was well-received by the Headteacher and Head of Department; the HoD says:

"Many thanks for the very full and perceptive report. While the phrase "next phase of the department's development" has been circulating for a while among us, it has not found a very precise definition or philosophy yet. I think your detailed reports on individual lessons direct our attention where it is needed, which is to the way we help students build understanding and to the individual student's experience in the classroom".

Bernard Murphy Programme Leader (CPD)

MEI Online Resources Survey

Thank you to all who took part in our recent survey about MEI Online Resources. The feedback you provided is proving very useful.

The Online Resources are more popular than ever and we want to make them as good as we can. In preparation for the increase in traffic we see around the time of the summer examinations, we have upgraded the servers. We now use a server that is four times more powerful than the previous version and we hope users will benefit from increased speed, especially when reviewing the gradebook etc.

Due to this upgrade there was a little disruption to some of the online services during parts of April; this is, unfortunately, unavoidable with this kind of upgrade. If you encounter any problems then please feed them back to us so we can act on them.

Stephen Lee Data Analyst / Web Manager

GCSE resources for 2010 specifications

I have been working on teaching resources for the twin pilot GCSEs. These resources can also be used for single mathematics specifications for teaching from 2010. Sample resources will soon be available at www.mei.org.uk/gcse

Stella Dudzic

Mathematics support for FE engineering

MEI has appointed Dr Chris Robbins to support mathematics in FE engineering courses by contributing to the development of mathematics learning materials set in engineering contexts. The post is funded by The Royal Academy of Engineering for two years on a part time basis at 0.5 full time equivalent.

The purpose of the post is to develop mathematics support materials for students and teachers of engineering courses in FE colleges and schools and to advise on their use.

Chris will also:

- explore how best to support students on engineering courses in their mathematical learning
- investigate how best to provide teachers with professional development
- ensure the materials are widely known and disseminated

Chris will work closely with an MEI mathematician. He will also receive support from an engineering mentor provided through The Royal Academy of Engineering.

The materials will show ways in which the mathematics in courses such as the Engineering Diploma is actually used in the workplace. They will also demonstrate effective approaches to learning the mathematics they describe. The materials will be designed to be made available via the internet and to take advantage of the opportunities that this medium provides. Some materials will be developed into substantial multimedia activities that exemplify particular engineering contexts and related mathematical techniques.

Richard Browne Programme Leader (Industry)

MEI Mathematics Conference 1 - 3 July 2010

This year's conference will take place at the University of Reading.

Much of the conference will be devoted to workshops, covering a wide variety of topics. These will be suitable for teachers to ages 14-19 **of all specifications**.

Some sessions will be delivered by experts associated with MEI as well as teachers and lecturers involved in the Further Mathematics Support Programme, and there will also be representatives from the examining boards available for question and answer sessions.



Other session leaders include:

- Michael Borcherds, Lead Developer for GeoGebra;
- Nadia Baker, Schools Outreach Officer for the Millennium Mathematics Project based at the University of Cambridge;
- Douglas Butler, a lead author of Autograph;
- Sally Barton, Vice Chair of NANAMIC;
- Steve Hewson, Post-16 Coordinator for NRICH;
- Current teachers and lecturers with practical classroom ideas and the occasional magic or juggling trick!

In addition, on the Thursday, the Royal Statistical Society will be holding their half-day conference, integrated with the MEI programme and you will be welcome to go to their sessions which will look at using real statistics in the classroom.

There will be guest lectures from Dr Vinay Kathotia, Project Head for Mathematics with the Nuffield Foundation, and Carol Vorderman, well known for her promotion of mathematics on television, including 16 years of Countdown, who is heading a mathematics task force to give advice on teaching and learning mathematics. Roger Porkess will also be giving a lecture about key moments in a life time working in mathematics to mark his impending retirement as Chief Executive of MEI.

For delegates staying overnight there will be a quiz on the Thursday, five a side football and a Conference Dinner on the Friday. We look forward to seeing you there! To read more and book your place, accommodation and session choices, please visit our web pages at: www.mei.org.uk/2010

"As a non-MEI, non-A level, non-UK teacher, I found the sessions I chose, the lectures and the conference as a whole excellent and relevant."

"An excellent programme....lectures were delivered by brilliant speakers and made you think. Overall a very well balanced programme with something for everyone..."