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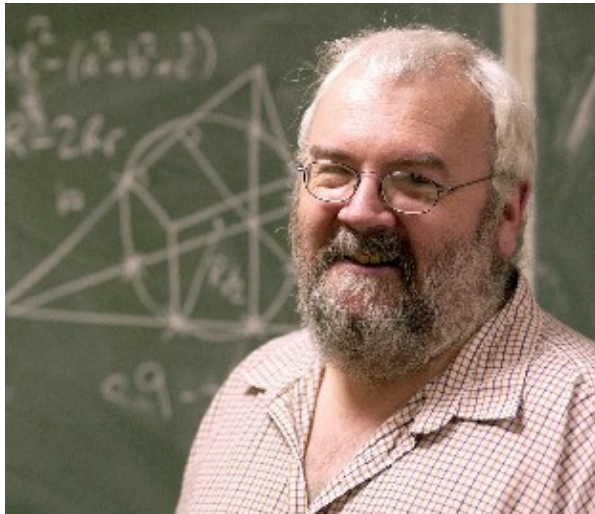
News

Beautiful young minds



Maths hits prime time TV this month with BBC2 screening a documentary following the British team at the 2006 International Mathematical Olympiad. *Beautiful young minds* will go out on Sunday the 14th of October between 9 and 10:30 pm

The International Mathematical Olympiad (IMO) is the annual world championship of secondary school mathematics. Countries are invited to send teams of six students to the IMO every July. The location moves from year to year. In 2007 the IMO was held in Vietnam, and the next few host countries will be Spain, Germany, Kazakhstan and the Netherlands.



Geoff Smith, Chair of the British Mathematical Olympiad and IMO team coach.

Almost 100 countries participate in this competition which has been running since 1959. The syllabus was set back then, when the only participants were from the Soviet bloc. The main subject areas are Euclidean geometry, algebra (polynomials, inequalities and functional equations), elementary number theory and combinatorics. Even the easiest problems on an IMO paper are far harder than anything a normal British secondary school student ever sees. At an IMO the students sit two exams, each for four and a half hours. There are three problems on each paper. The first is extremely hard, and after that it gets more difficult.

Beautiful young minds

The documentary, directed by Morgan Matthews of Blast! Films, follows a small group of five or six students who are, at the start of the film, striving to get selected for the UK team. The film shows the students at home, and at various maths training camps during the year, as the personal relationships develop. The film crew visited China to view their IMO training camp, and came along to film IMO 2006 which was held in Ljubljana, Slovenia.

As the title suggests, the documentary highlights, yet again, the link between mathematical ability and autism. "It is a feature of mathematics that people on the autistic spectrum are at no disadvantage. Therefore people with Asperger's syndrome are particularly attracted to the subject," says Geoff Smith, Senior Lecturer in Mathematics at the University of Bath and Chair of the British Mathematical Olympiad, who coached the British team and led the UK delegation to the IMO. "In an average year, there are usually one or two students on the autistic spectrum among the 20 or so young people in serious training for the IMO. However, in the year that the film was made, by chance there were more than usual. The film-makers were clearly intrigued by this, and paid particular attention to some of these students."

"Unfortunately you won't learn a lot of mathematics by watching this piece," says Smith. "But you will see how exceptionally talented young mathematicians, many of whom are socially awkward in a normal classroom environment, flourish when put in a group of like-minded people of their own age."

Further information

The UK activity concerning the IMO is overseen by The United Kingdom Mathematics Trust (UKMT). Almost 3/4 million students sit UKMT challenge papers and olympiad exams every year. Mentoring schemes with associated problem sheets give talented mathematics students free access to a very demanding programme of mathematical work, irrespective of the quality or status of the school which they attend. All this is made possible by a small army of volunteers who are determined to keep make very demanding and beautiful mathematics available to young people, completely independent of the national curriculum and the national system of public examinations

Geoff Smith writes an annual report on the IMO, and gives the problems but not the solutions. You can read recent leader's reports and an interesting report by the student Dominic Yeo on the 2007 IMO on the UK IMO register.



Plus is part of the family of activities in the Millennium Mathematics Project, which also includes the NRICH and MOTIVATE sites.

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