

## Y12 Mathematics Enrichment Day

### Friday 27<sup>th</sup> June 2014

**Venue: University of Cambridge, Centre for Mathematical Sciences,  
Wilberforce Road, Cambridge CB3 0WA**

A free enrichment day for Year 12 students taking A-level Mathematics, designed to inspire, broaden horizons, and develop mathematical thinking. The day is highly interactive and will include a mix of lectures and small-group workshops led by members of the University of Cambridge Mathematics Faculty.

The keynote speakers are Professor Imre Leader (Department of Pure Mathematics and Mathematical Statistics, University of Cambridge) and Professor David Tong (Department of Applied Mathematics and Theoretical Physics, University of Cambridge). Each student participant will also take part in two different small group interactive workshops, led by staff from NRICH and the Cambridge Mathematics Education Project, assisted by PhD and undergraduate students.

10.00 - 10.30	Arrival & registration
10.30 - 11.20	<b>Lecture - Professor Imre Leader: 'Order in Disorder'</b> Can we always find some order in a large amount of disorder? For example, suppose we have six people at a party, with any two being either friends or strangers -- but we have no idea of the various patterns of friendship. Can we always find among them three people who are mutual friends or mutual strangers?
11.20 - 11.30	<i>Break</i>
11.30 - 12.30	<b>Small group interactive workshops</b> Workshops are led by staff from NRICH and the Cambridge Mathematics Education Project, assisted by PhD and undergraduate students from the Mathematics Faculty.
12.30 - 1.15	<i>Lunch (please note participants must bring a packed lunch)</i>
1.15 - 2.15	<b>Small group interactive workshops</b> Workshops are led by staff from NRICH and the Cambridge Mathematics Education Project, assisted by PhD and undergraduate students from the Mathematics Faculty.
2.20 - 3.10	<b>Lecture - Professor David Tong: 'Einstein, Relativity and Gravity Waves'</b> I will describe Einstein's theory of relativity, and examine what it has to do with the recent potential discovery of gravity waves during the Big Bang.
3.15	End and depart

*This is a provisional timetable and may be subject to change*

**The event is free, but places are limited: pre-booking is essential via the online booking form.** Maximum 15 students per school/college, plus accompanying teachers.

**Book online: [mmp.maths.org/Y12-27June14](http://mmp.maths.org/Y12-27June14)**