



# THE MATHEMATICAL ASSOCIATION

Sussex Branch  
www.ma-sussex.org.uk



University of Sussex

## ROYAL INSTITUTION MASTER CLASSES IN MATHEMATICS

*held at the University of Sussex*

### PROGRAMME FOR AUTUMN 2005

1 October	<b>Welcome!</b>	<i>Mr Giles Dickins, University of Sussex</i>
8 October	<b>Taking Chances</b> <b>Yo Ho Ho-ratio: some mathematics of Trafalgar *</b>	<i>Dr John Haigh, University of Sussex</i> <i>Mr Peter Ransom, Mountbatten School, Southampton</i>
15 October	<i>No Master Class today, because of the University Open Day</i>	
22 October	<b>Graphic Calculators</b>	<i>Dr Jenny Sharp, University of Plymouth</i>
29 October	<i>No Master Class today, because of Half Term</i>	
5 November	<b>Fun and Games</b>	<i>Prof. Celia Hoyles, University of London</i>
12 November	<b>Ellipses, etc</b>	<i>Dr Brian Bolt, University of Exeter</i>
19 November	<b>Yo Ho Ho-ratio: some mathematics of Trafalgar *</b> <b>Taking Chances</b>	<i>Mr Peter Ransom, Mountbatten School, Southampton</i> <i>Dr John Haigh, University of Sussex</i>
26 November	<b>The Power of Two</b>	<i>Dr Vinay Kathotia, Royal Institution</i>
3 December	<b>Mathematical Challenge</b> <i>with presentation of certificates</i>	<i>Mr David Brown, Heathfield Community College</i> <i>Prof. Charles Goldie, University of Sussex</i>

*organised in association with the Sussex Branch of the Mathematical Association and the University of Sussex*

---

\* *This is presented by Able Seaman Ransom of HMS Pickle (the ship that brought the news of Trafalgar back to Britain) and powder monkey Shiers of HMS Victory, both in 1805 seaman's dress. After looking at the risks Nelson took it looks at the mathematics of cannon balls and demonstrates their destructive power. 200 year old cannon balls are used. Probability using crown and anchor dice is looked at. We finish off by making an old piece of navigational instrumentation (parallel rulers) and the young people work on a navigational chart with the instrument made. This is accompanied by many worksheets to take away, answers and even a taste of ships biscuits. CD-ROMs of all the materials (and much more) are available for teachers to use in their classrooms.*