

# Mathematical Thinking: An Interdisciplinary Workshop

Wednesday 21st November

10.00 Coffee and registration.

10.30 Start – Welcome.

10.40 Terezinha Nunes (Oxford)

*Are fractions too difficult for primary school children?*

11.40 Coffee/tea.

12.00 Patrick Barmby, Tony Harries & Steve Higgins (Durham)

*Representational-reasoning model of understanding: Implications and applying it to multiplication.*

12.30 Anne Teppo (Bozeman) & Marja van den Heuvel-Panhuizen (Utrecht / Humboldt)

*Mathe-didactical analysis: A crucial component of task design.*

1.00 Lunch.

2.00 Alexandre Borovik (Manchester)

*Mathematical thinking as experienced by a mathematician.*

3.00 Coffee/tea.

3.20 Marcus Giaquinto (UCL)

*The importance of visual thinking in mathematics.*

4.20 Ladislav Kvasz (Charles Univ Prague / Comenius)

*On the interplay of symbolic and iconic representations in mathematical thinking.*

4.50 Sergiy Klymchuk (Auckland Univ of Technology)

*Popularising mathematical thinking: A personal experience.*

5.20 Finish.

5.40 Drinks reception, followed by conference dinner.

## Thursday 22nd November

**9.00** Daniela Rudloff (Leicester)

*Supporting arguments with statistical information.*

**9.30** Anne Watson (Oxford)

*Mathematical thinking in adolescence: Possible shifts of perspective.*

**10.00** David Tall (Warwick)

*How individuals develop mathematical thinking.*

**11.00** Coffee/tea

**11.20** Zbigniew Semadeni (Warsaw)

*Deep intuition as a level in the development of the concept image in D. Tall's three worlds of mathematics.*

**11.50** Oleksiy Yevdokimov (Southern Queensland)

*On some characteristics of mathematical thinking in advanced problem solving.*

**12.20** Lunch.

**1.20** Darina Jirotkova (Charles Univ Prague) & Graham Littler (Derby)

*The concept building process in 3D geometry.*

**1.50** Ruth Stavy, Dina Tirosh & Reuven Babai (Tel Aviv)

*Brain activity during problem solving in geometry.*

**2.20** Coffee/tea

**2.40** Peter Bryant (Oxford Brookes)

*The importance of relations in children's mathematical development.*

**3.40** Plenary Panel.

**4.40** End.

Programme as of Monday 8<sup>th</sup> October, 2007.