



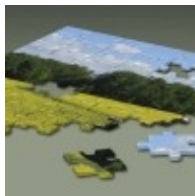
© 1997–2004, Millennium Mathematics Project, University of Cambridge.

Permission is granted to print and copy this page on paper for non-commercial use. For other uses, including electronic redistribution, please contact us.

June 2006

Issue 39

features...



Gödel and the limits of logic

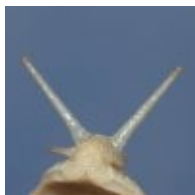
When Kurt Gödel published his *incompleteness theorem* in 1931, the mathematical community was stunned: using maths he had proved that there are limits to what maths can prove. This put an end to the hope that all of maths could one day be unified in one elegant theory and had very real implications for computer science.

John W Dawson describes Gödel's brilliant work and troubled life.



The right spin: how to fly a broken space craft

On the 25th of May 1997 a dramatic collision tore a hole into the space station *Mir* and sent it hurtling through space. As NASA astronaut **Michael Foale** tells *Plus*, the fate of *Mir* and its crew hinged on a classical set of equations.



Graphical Methods II: The return of the slime

In last issue's Graphical methods I **Phil Wilson** used maths to predict the outcome of a cold war in slug world. In this self-contained article he looks at slug world after the disaster: with only a few survivors and all

features...

infra-structure destroyed, which species will take root and how will they develop? Graphs can tell it all.



The power of groups

Groups are some of the most fundamental objects in maths. Take a system of interacting objects and strip it to the bone to see what makes it tick, and very often you're faced with a group. **Colva Roney-Dougal** takes us into their abstract world and puzzles over a game of Solitaire.



Career interview: furniture design

Two designers tell us how they took the long way round to design, and how the maths and science they took in on the way helps them with their work today.



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