



© 1997–2009, 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.

---

September 1997

Issue 3

Space probes, like NASA's recent Pathfinder mission to Mars, have radio transmitters of only a few watts, but have to transmit pictures and scientific data across hundreds of millions of miles without the information being completely swamped by noise. Read about how coding theory helps.



### Mathematics, marriage and finding somewhere to eat

How do you choose a partner? Is it an irrational choice or is it made rationally, based on a mathematical model which analyses the best potential partner you are likely to meet?



### Dynamic programming: an introduction

The previous feature, "Mathematics, marriage and finding somewhere to eat" investigated the problem of finding the best potential partner from a fixed number of potential partners using a technique known as "optimal stopping". Inevitably, mathematicians and mathematical psychologists have constructed other models of the problem...

### Decoding a war time diary

## Plus Magazine

An account of how a prisoner of war's diary was recently decoded. Donald Hill wrote his diary in a numerical code, disguised as a set of mathematical tables, while in Hong Kong during and after the Japanese invasion of 1941.



### The life and numbers of Fibonacci

Fibonacci, famous for the *Fibonacci sequence*, also introduced the decimal system into Europe.



### Student interview – Sarah Hudson

**Sarah Hudson** talks about her first year at the University of Sussex. She is doing a BSc degree in Maths with European Studies, which includes a year in Germany.



### Career interview – Meteorologist

Read about what it is like to work at the Meteorological Office in this interview with **Helen Hewson**. There's also a contact point for careers information.



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