



Bio Sketch for Philip Sharp

What area of maths do you mostly work in?

Computational mathematics and simulations of the Solar System

Tell us a bit more...

Many types of equations are used in Science and Engineering. The simpler of these equations such as those you see at high school can be solved using algebra or calculus but the more difficult equations must be solved using a computer. There are many ways each type of equation can be solved on a computer. In my research, I try to find the best method or at least a method that is better than what other people use.

One area of Science where lots of different equations occur is in the astronomy of the Solar System. The equations are used to model the motion of the planets, moons, asteroids, comets and the many recently discovered dwarf planets out beyond Neptune. The equations are also used to investigate the early history of the Solar System and to find the best orbit for spacecrafts such as the Cassini spacecraft currently orbiting Saturn and its 54 moons. I am working with people at UCLA and NASA's Jet Propulsion Laboratory to find better ways to solve some of these equations and to use the equations to gain knowledge about the Solar System.

What were your best and worst subjects at school?

Up to 5th form: best - Maths, worst - French

6th form: best - Maths, worst - English

7th form: best - Physics and Maths, worst- can't remember.

When you decided you wanted to be a mathematician and why

Fourth year at Uni. I eliminated astronomy because there were few jobs for astronomers in NZ and eliminated Physics because I found it tough at Uni.

What training (degrees and subjects) you've done

BSc (Maths, Phys), BSc(Hons) Mathematics, PhD Mathematics

Most interesting place you've travelled with your research

Paris, France (not to be confused with Paris, Texas)

If you follow sport, what sport, and which team - if not, why not???

I'm too much of an individualist to follow team sports. Over the last few years I've done the following competively: Archery, Billiards, Croquet, Long distance walking, run 10Ks.