

# Editorial

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*Vijay Chandru, Associate Editor*

'Nice guys finish first' says Richard Dawkins in his legendary *The Selfish Gene* (OUP, 1989 Edition). Nicety, however, requires a careful technical definition for this counter-intuitive conclusion to be reached. Dawkins goes on to provide such a definition using complex ideas from game theory applied to socio-biology and ascribes this innovative approach to the work of W D Hamilton and his collaborators. This issue of *Resonance* is dedicated to Hamilton and the insightful piece by R Gadagkar reveals why Dawkins considered him to be the greatest Darwinian since Darwin.



Another theme in this issue is the description of new experiments involving ion traps being carried out at IISc and BARC. The Article-in-a-Box by Vasant Natarajan and the front cover picture describe the work on laser cooling of atoms at IISc and the article on quadrupole ion traps by Pushpa M Rao and others presents an overview of the technologies and experimental platforms. It is indeed amazing that the observation of a single atomic ion, almost at rest in a perturbation free environment, over a long period of time, has become a practical reality.

Cash transactions are convenient because they can be carried out between strangers while maintaining privacy of the transaction. (Although a hidden camera can be a nuisance!) In part 5 of the series on e-commerce, V Rajaraman tells us how e-cash is being conceived to mimic hard cash transactions with all its advantages while minimizing the disadvantages. Computer based simulation has become a powerful methodology for capturing the behaviour of complex systems in a model. In the second part of his review of this methodology, N K Srinivasan describes the use of Monte Carlo methods.

Given six toothpicks, can we realise an arrangement that reveals four equilateral triangles? This is a puzzle that budding chemists should try to solve. V Chandrasekhar, in his article on a phosphonium cation leads us through a fascinating discussion of the discovery of structure in chemical compounds.

In addition, articles on microscale experiments in chemistry, heavy metal pollution, error correcting quantum codes and the prevention of restenosis make this a bountiful issue. Enjoy!

