

## **Citation for YRA 2012 – Dr Rahul Jain**

Dr Rahul Jain has made breakthrough contributions to our understanding of proofs and computation. An outstanding researcher with the Centre for Quantum Technologies and the Department of Computer Science, Dr Jain's specialty is the interface between randomised, interactive, and quantum computing.

His research concentrates on the computational power of interactive protocols where a powerful prover tries to convince a verifier that a mathematical statement is true. This question is closely related to one of the seven Millennium Prize Problems put forward by the Clay Mathematics Institute in 2000.

Dr Jain's fundamental paper on quantum verifiers won the "Best Paper Award" in 2010 at the ACM Symposium on Theory of Computing, the most prestigious conference in theoretical computer science. The highly original techniques developed in this paper were later used by Dr Jain to design fast parallel algorithms for an important class of problems.

With the area of quantum computing growing in importance, NUS is very fortunate to have Dr Jain among its faculty. His notable work thus far indicates great promise as a researcher.

Dr Jain, for your breakthrough contributions to our understanding of proofs and computation, you deserve the NUS Young Researcher Award. Congratulations!