

MEMORIAL RESOLUTION

RAJEEV MOTWANI

(1962-2009)

Rajeev Motwani, Professor of Computer Science at Stanford University, passed away on June 5, 2009, at the age of 47.

Rajeev was a luminary in many academic disciplines. He made fundamental contributions to the foundations of computer science, search and information retrieval, streaming databases and data mining, and robotics. In these areas, he considered questions as philosophical as what makes problems inherently intractable, and as practical as finding similar images and documents from a database. On the more philosophical side, he was a co-author on a landmark publication in theoretical computer science, "Proof verification and the hardness of approximation problems," which established a connection between probabilistic checking of proofs and the intractability of computational problems. Rajeev was a co-winner of the Gödel Prize in 2001 for this work.

While a PhD student at Berkeley, Rajeev started a long and fruitful collaboration with fellow PhD student, Prabhakar Raghavan. This culminated in the writing of a text book, "Randomized Algorithms", which has become a definitive text for this discipline. This textbook epitomizes the meeting of the abstract and the concrete which pervades much of Rajeev's career, and has been a source of inspiration to countless students. Rajeev graduated from Berkeley in 1988 with a PhD in Computer Science, and started at Stanford soon after.

As a Professor at Stanford, Rajeev made many foundational contributions. At the same time, algorithms developed by Rajeev and his students have shaped the applied fields of large scale data processing, data mining, and web search. In the words of Sergey Brin, a co-founder of the web search engine, Google:

"Today, whenever you use a piece of technology, there is a good chance a little bit of Rajeev Motwani is behind it."

Rajeev received many awards for his research; notably, the Gödel Prize, and the Arthur P. Sloan Foundation Research Fellowship. Rajeev's academic legacy extends to teaching and advising a large number of students, many of whom have gone on to successful academic careers. In addition to these academic accomplishments, Rajeev was a legendary figure in Silicon Valley. He was an early investor and technical advisor for many ventures, and mentored dozens of young entrepreneurs. In this respect, Rajeev was following in the footsteps of another Stanford luminary, Frederick E. Terman. One of his long-time friends, Madhu Sudan, points this out:

“Early stage of my career I knew how smart [Rajeev] was, but it really took Stanford to bring out his true talent, which was the ability to recognize importance of ideas quicker than anyone else around. He will be missed sorely.”

Rajeev is survived by his wife, Asha Jadeja, and two daughters, Naitri and Anya. Rajeev's accidental death at the age of 47 was a shock to many. In the words of Prabhakar Raghavan:

“It was over 25 years ago that Rajeev and I first collaborated; initially on class assignments at Berkeley, and then on research. A great deal has been said about Rajeev by his many admirers, and all of it is justifiably true. That said, I have always felt that with Rajeev's work, the best was yet to come - that he had something even bigger to do, something more to give us - beyond his already considerable achievements, beyond all that he has given each of us. Sadly, we are now denied this promise.”

We take this opportunity to express our grief at the premature death of Rajeev Motwani while he was still in his prime, and also to celebrate his extraordinary achievements.

Committee:

Ashish Goel, Chair