

## Obituary

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# IN MEMORIAM: Jayaram Muthuswamy 1952–2021

*Philip Maymin, Editor-in-Chief Algorithmic Finance*  
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Jay was a friend and a profound visionary. I have never met anyone else on earth like him, for whom there was no such thing as a problem that couldn't be solved. Throughout his career, he tackled the world's biggest open problems. He was extraordinarily open-minded, passionate, and hard-working. His smile could light up a room. Without him, this journal would never have come to exist. He will be dearly missed.

(Bob Webb) Jay was truly one-of-a-kind. He had an unwavering curiosity and intellect with a depth of knowledge in many areas ranging from music to mathematics to statistics to finance, among others. Jay had a wonderful sense of humor and a very quick wit. He could tell a joke without missing a beat or a punchline. He was an outstanding presenter and reviewer. He could convey the essence of complex ideas simply and bring a crowd to his side with his persuasive arguments, infectious humor, and zest for life. And because Jay could see problems from different perspectives, he often had novel insights into their potential solutions. Jay's focus on the importance of considering asynchronicity had a powerful impact on the Finance profession as did his 1994 *Journal of Finance* article co-authored with Merton Miller and Bob Whaley. In his later years, Jay started working on two of the famous seven unsolved

problems in mathematics: the Riemann hypothesis and the P versus NP problem. Jay kept his progress on his potential solutions to these two problems very close to his chest. Jay will be missed but his influence will live on.

(Myron Scholes) Jay was unique. I first met him when he was a PhD student under Merton Miller's guidance. Later, Jay and I reconnected on his asking me to give a talk at Kent State. He was always enthusiastic. I loved that he extended my work with Joe Williams on a synchronicity on estimating betas. He extended our work and was a champion of the importance of research in reported versus real transaction prices. These ideas are the core of successful high frequency traders. He demonstrated that the lack of synchronicity would lead to misinterpretations of the profit and loss potential on various strategies. That is a lesson that many traders have learned the hard way trying to translate paper into real profits. He was also well read and had a dream of being able to solve an impossible problem to solve for us mere mortals, the P & NP problem. It was always fun talking to him about his pursuits. I don't know whether he ever solved the problem, but he thought he did find the algorithms that could solve very complex multi-node problems in less than exponential time with great benefits to society.