

**PROFESSOR ALLADI RAMAKRISHNAN'S SPEECH  
ON THE INAUGURATION OF THE MATSCIENCE INSTITUTE**

*My father Professor Alladi Ramakrishnan was a master of exposition, both in written and spoken form. He was a dynamic speaker, an orator in every sense. Right from my boyhood I had the pleasure to listen to many of his scientific lectures and speeches, and was inspired by his manner of speaking and the power of his oratory. The finest speech he ever gave was perhaps at the inauguration of MATSCIENCE, the Institute of Mathematical Sciences, on January 3, 1962, when his thoughts came pouring out at that very exciting and memorable occasion. As a seven year old boy, I was in the front row of the English Lecture Hall at the Presidency College in Madras when he delivered that speech extempore, as was his custom. The speech was later written up from a tape recording. It is reproduced here in remembrance of him on his 85-th birthday. - Krishnaswami Alladi, August 9, 2008.*

**The Miracle Has Happened\***

*Alladi Ramakrishnan*

So the miracle has happened. By the Grace of God and the will of man, a new situation has been brought into being which augurs to be the starting point of an intellectual renaissance, the nature and magnitude of which cannot be foreseen at the present time. It is incredible that a series of events, each as improbable as the other, should have taken place in such steady and rapid succession. It is as though a chapter of a book of fairy tales has been transmuted into real life and I feel like one who wakes up from a dream to find reality stranger than fantasy.

The dream is so chaste that I have the courage to ask all those present here to share it with me. It originated five years ago in the exotic atmosphere of the quaint old town of Kyoto in Japan where I spent six weeks at the invitation of Professor Yukawa. In the 'domestic' environment of the Yukawa Hall, young Japanese physicists, the hope and pride of their country, just resurrected from the second World War, gathered together in enlightened leisure to discuss the most abstruse problems of modern physics. That strange enchantment drew me into the domain of elementary particle physics and I played with the idea of creating something like the Yukawa Hall in my own home town where my great father made his legendary reputation in another field of intellectual activity.

The enchantment became a passion when a fortuitous circumstance took me to the New World and I had the opportunity to attend the Conference on High Energy Physics at the University of Rochester in the spring of 1956. Within four days I was brought face to face with the rising generation of American physicists. One had only to listen to Gell-Mann and Chew, Feynman and Goldberger, to realise that a new era in American physics had been ushered in. American institutions no longer

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\*Address given at the inauguration of MATSCIENCE, on 3 Jan, 1962

depended on the guidance of European scientists as they did a decade ago, when due to the chance of war, they were able to offer hospitality to European physicists like Fermi, Segre, and Bethe. American physics leapt from infancy to manhood within this decade and it has now become almost a necessity for European physicists to spend some time in the great American institutions and in the laboratories where things are happening every day and every hour. I felt that such a transformation needs to come in my own country which despite its organised efforts in scientific research has yet to take a place in creative science.

I therefore tried to analyse the causes for our failure. There has always been the conventional argument that there was not enough talent in the country which is not borne out by facts. It is a tragedy too deep for tears that we do not take cognisance of talent or creative work unless it has received recognition outside our frontiers. Sometimes the wait is too long, the response so cold, that it freezes up the all too frail impulses for academic life in our country. What we need is a new generation of scientists, impatient for opportunities, intolerant of mediocrity, full of action, full of manly pride and friendship like their compeers in the new world, who have not only faith in their powers, but in the scientific progress of their country.

I was strengthened in this faith during my stay, at the kind invitation of Professor Oppenheimer, in Princeton, where the most gifted minds in mathematical sciences gather together every year in an atmosphere exhilarating for creative work. It was a momentous year when the work of Yang and Lee marked the greatest advance in physical thought since the birth of quantum mechanics in 1926. I held a watching brief as a representative of our unborn Institute and I returned from Princeton with no other thought dominating my mind except to reproduce, in a small measure at least, the atmosphere for such creative work. Chance and circumstance came to my favour when a small band of students, stricken by the same splendid sickness, gathered round me in goodly friendship. We had no resource at our command except the love of common excitement for doing something new. To this fraternity we gave the name - "Theoretical Physics Seminar". It was located in my family home with the consent of my gracious wife. We met in leisured comfort and indulged in the impertinence of attempting to work on the same type of problems as are engaging the attention of theoretical physicists elsewhere. We were encouraged in our efforts by the frequent visits of famous physicists whose friendliness and cooperation were our only sources of strength and sustenance. What a fine hour it was when Bohr and Salam who span the growth of modern physics from atomic physics to gauge theories of elementary particles, evinced an interest which gave us the strength to hope when we were all alone and everything seemed so near despair. We waited and watched for something to happen.

It was one of the fortunate moments of my life when I met the Finance Minister one evening at a gathering of international students. It puzzled me beyond comprehension to find the Minister, who must be more concerned with building dams and bridges, getting interested in the development of mathematical research. I felt a

trifle guilty that I had inveigled him into this domain which had intoxicated me and my associates beyond reason. Soon I realised that it became almost a faith with him, a faith which was strengthened by his recent visit to the United States. He returned with the conviction that creative science needed the noble heat of youthful ambition and not the tepid caution of unfeeling mediocrity. Before proceeding to take steps for the creation of an institute for advanced learning, he was anxious to have the blessings and active support of our Prime Minister. It occurred to him in a discussion with my esteemed and genial friend Dr. M. M. Shapiro that all students associated with me should be introduced to the Prime Minister during his visit to Madras. The impression they made on our Prime Minister was more due to his generosity than to their own achievements. It was his wide humanity and deep concern for the prosperity of our country that made him see the light of hope even in the feeble efforts of smaller men. His support by agreeing to be our Patron, gave that final impulse which resulted in the setting up of this Institute.

The final act in this strange dream is even more fantastic than the events that preceded it. I approached Professor S. Chandrasekhar, one of the greatest astrophysicists of our time, who stands so high above the rest of our own common mould, with a request that he should associate himself with the new Institute. It was an insolence on my part to do so when I was assuming the Directorship of the Institute. I suppose you will excuse me for this if I assure you that the spirit in which I did so was animated by that in the greatest of legends when Arjuna approached Lord Krishna for his support. It was accepted with that same legendary grace, and the Institute has honoured itself by his association with it. This band of students, this firstlings of the fold, must consider themselves to be the happy few to have chosen him as their guide.

This then is the genesis of this new Institute which symbolises the hopes and ideals of the entire scientific community in India. The Government of Madras and in particular the Chief and Finance Ministers ably assisted by the Education Secretary, another victim of the splendid sickness, must be congratulated for the most gracious gesture that has ever been made by any administrative authority to the academic community in our country. The best tribute we can pay to our government is to say, "it does not seem to be the red tape - it is the blue riband." Is it not natural that greetings have poured from scientists all over the world, from California in the west to Sydney in the east? To those scientists who visited Madras, whose very presence had introduced the heady atmosphere of Berkeley into the placid environs of my family home, we are deeply grateful, for they kept alive the state of hope till the moment of its realisation. As for myself, it is a period of thanksgiving to my great teachers Professor Bhabha and Professor Bartlett who initiated me into theoretical physics. My only regret is that my parents whose home nursed the happy breed, are not alive today at the crucial moment of my academic life. In recompense I shall pass on to my students their message that the pursuit of science is at its best when it is a part of a way of life. That is the ideal to which this institute is dedicated.