

Reminiscences at SpentaFest

K.R. Sreenivasan, New York University, USA

Dear Spenta,

I just heard that there will be a special session in your honor at the upcoming String Theory meeting at ICTS. I am sorry I cannot be there to participate in this important occasion. This note ought to do for now in expressing my very best wishes to you on the special day and for the future.

It is hard to imagine your age to be 65---and the only sign of that seems to be the preponderance of gray hair that I see in the photograph on the conference website. Though Ramanujan would have made something special out of 65, it is just a number, and life moves on. It has just moved on for me.

I fondly remember our several conversations, begun first while I was at ICTP, continued off and on later---though only fitfully. I remember our discussions about ICTS before it became a reality, and after that as well. One thing we agreed on readily: it is not enough to do things but it is important to do them with good taste. Whether it is picking a research problem, or designing a program or drawing up a plan for a building, or running an institution like ICTS, it is good taste that sustains good vibes, which are so essential for the continued success of an enterprise. You have that good taste for which I have admired you.

I congratulate you on reaching this milestone and wish you the very best for many years of interesting life. My best to your wife, as well. With some luck, we will see you sometime this year.

Your friend,
Sreeni

Andy Millis, Simons Foundation, USA

On behalf of the Simons Foundation I write to congratulate Spenta for his achievement in establishing the I.C.T.S. This wonderful institute is making crucially important contributions to science in India and internationally. We are proud to be able to provide a little bit of support, and are very grateful to Spenta for getting it launched.

Jitu Mayor, NCBS, Bangalore

Do convey my heartfelt congratulations to Spenta: for not only his contributions to science but also to his bonhomie and camaraderie and his zest for all things near and dear to my heart in science and its practice.

Rajaram Nityananda, Azim Premji University, Bangalore

Dear Spenta,

Have just sent in my apologies for 11/1 - would have been good to listen to the talks and join in for the dinner and shake you by the hand for the major jobs you've done, quite apart from the physics - .

All I have to do is to compare theory physics as it was in 1969 (you may or may not know I was a TIFR visiting member for a month or so!) to what it is now - and of course look at ICTS.

all the best
Rajaram

Virendra Singh, Former Director, Tata Institute of Fundamental Research, Mumbai

Dear Friends

I am very happy that you are organising the Spentafest. We all owe so much to him for his contribution to the theoretical physics Group at TIFR and in particular to string theory activities.

I would not be able to personally attend the conference. I wish him a very bright and fruitful future.

Sincerely

Narayana Murthy, Founder, Infosys

Dear Folks,

Thanks for your kind invitation. I have tremendous respect and affection for Spenta. However, I will be busy those days. Therefore, I may not be able to attend the festivities. Please excuse me. My best wishes to Spenta and the institute.

Jevicki Antal, Brown University, USA

Hi Spenta, I was wanting to write to you for a while, specially when I learned of the celebration being planned in January at ICTS. I would have loved to participate, I learned about it too late: it turns out that I was committed to participate as a co/organizer of a school named after S Mandelstam/in Durban/he was a graduate at Wits, and they have renamed their institute in his honor. So I am sorry that I will not be able to participate, in a very much deserved celebration in your honor.

Congratulations! I have always been impressed by how much you achieved and at the same time uplifted Theory in India! Junggi is happy to be in Bengaluru, and he told me of interesting discussions you were having. In particular he mentioned that you have a nice way to derive Schwarzian, that's great. You will see that we worked hard, in particular in Appendix B

of the paper /revised with Kenta Suzuki to evaluate it to all orders, by direct evaluation. so a general proof that you might have is great
Again, Best Wishes for your Birthday and Congratulations!
Antal

Nathan Seiberg, Institute for Advanced Study, Princeton

Dear Spenta, Rajesh, and Shiraz,

Thank you very much for the invitation. I really hope I could come.
However, during those days I'll attend a family event and will not be able to be there.

I really salute Spenta's contribution to science in general and to building science in India. I can appreciate how hard it is and I feel that his success should be recognized and celebrated. I wish I could be there with you.

Sorry about that, Nati

Edouard Brezin, École normale supérieure, Paris

Dear Spenta,

We know each other for a long time and I have always very much appreciated our interactions, including the large N book that we have edited together. However I think that it does not make sense for me to be part of the contributors for the coming SpentaFest: I have nothing to report which would interest the very distinguished list of contributors that have been invited. So I hope you will 'forgive me to withdraw from this festive gathering. Nevertheless I am confident that this homage will make justice to your life as a scientist and as a leader for our younger colleagues.

With warm regards
Edouard

Sayantani Bhattacharyya, Indian Institute of Technology, Kanpur

Respected Sir,

I am very sorry that I could not attend this meeting. I very much wanted to. I wanted to thank you for all your support for us.

When I was in TIFR, I had such a protected life that I could not even realise it. Now seeing the situation for students in other institutes, I have understood how fortunate we were. Apart from study, not a single other thing we had to worry about. While in TIFR, I just did not know that funding could be an issue, you passed everything so smoothly for us.

Now only I have started realising how rare it is to have such a nice environment with so many very very good people around, at least in our country. And now I know how much effort you had to put in to build this academic environment for us, where work is of highest priority.

I was reading your interview that is posted in the conference website. It is so inspiring.

From the bottom of my heart I thank you for all your patience, affection and support towards us.

Regards
Sayantani

Mustansir Barma, Former Director, Tata Institute of Fundamental Research, Mumbai

Spenta and I are both products of the same city, namely Bombay, now Mumbai. We both attended the same college, namely St. Xavier's, but somehow our paths did not cross. We later went to graduate school in the New York area, Spenta at CCNY and I at Stony Brook, but once again our paths did not cross. We met finally at TIFR, a few years after I joined, when Spenta visited and gave a set of lectures on large N. Not too long after that,

Spenta joined TIFR as well. We then spent many years together as colleagues in DTP.

I am sure that Spenta's role as a researcher, as well as his efforts in building a most successful String Theory group within DTP, have been brought out by others. As the first Centre Director of ICTS, he took on the difficult job of trying to build a world-class institute within the constraints of our systems. ICTS today is just that ... a world-class institute. Spenta and his team have built an outstanding institute that is a feather in the cap for not only the Tata Institute, but Indian science as a whole.

To conclude, I would like to send warm greetings ... from one Bombay boy to another, from Hyderabad to Bengaluru. I wish you all the very best in the years to come.

Sriram Ramaswamy, Indian Institute of Science, Bangalore

My friendship with Spenta goes back to his postdoc and my grad-student days at Chicago in the 1980s. The qualities that made him so much more than a scientist were already evident then. His advocacy of the unity of critical phenomena and QFT was vital in creating a culture among my entire graduate-school cohort for educating ourselves in the physics of all kinds of systems with many degrees of freedom, regardless of the particular setting. For me, crucially, this allowed a smooth final transition into condensed-matter and statistical physics despite starting out in rather different areas.

Over the years Spenta has done superb science and created an enviable intellectual environment for doing superb science, in the Theory Group at TIFR Bombay and now in ICTS. These are extraordinary achievements.

Our friendship has continued and grown. We were delighted when Leena, a friend from our earliest days in Bangalore when she did her PhD in the theory group at IISc, entered Spenta's life.

With warmest wishes to Spenta, Leena, Neha and Varun for many more joyful years, in science and beyond science, from Rama and me

Sriram

Vivek Monteiro, CITU, Mumbai

I am grateful to my physics teacher at St. Xavier's college, Prof. R.V. Kamat, for introducing me to two young first year students- Joseph Pinto and Spenta Wadia- when I was doing my final year B.Sc. Otherwise, in a large college like St. Xavier's, first year students might never have met a B. Sc senior.

Spenta, Joe and I quickly became good friends, because both these young guys had those special qualities which I appreciated - always asking questions, willingness to go out of the ordinary, and stubbornness to persist. This quality of always trying to get to the bottom of things is common to good scientists, detectives and journalists. Spenta became the first, Joe the last.

Joe and Spenta were classmates, bench mates, in fact, from Class IX at St Mary's School in Byculla- certainly not an elite institution. I wonder what it was about that class, because two other classmates - Rashid Wadia, and Sudhir Paranjape, also went on to get their doctorates in science, one in the life sciences at Harvard, and the other in physics from Univ. of Chicago.

Joe tells me that when Spenta joined St Mary's he was not the 'scholar type', in fact, quite far from the top of the class. He was only interested in drawing and painting, and so the class teacher put him to sit next to Joe, the 'scholar', hoping to reform him, which in hindsight seems to have been a brilliant decision.

As soon as we met in college, Spenta showed me his own original proof of the infinity of prime numbers. Euclid's proof is based on constructing a number which is not divisible by the first n prime numbers, for any n , by

multiplying those primes and adding one to their product. The young school student Spenta's proof was based on constructing such a number in a different way, by adding the inverses of the first n prime numbers. I was really impressed, and rightly so.

I met Spenta's wonderful and extremely special family- his father, who was a worker in Godrej factory, a highly sensitive person, with a love for learning, music and old clocks, his loving and affectionate mother, and Rusheed, his sensitive and scholarly younger brother, who later became a labour historian.

After 1968, I went to the US for my graduate studies, we kept in touch through occasional letters. We met again in 1973, when I was just about completing my doctoral studies at SUNY Stony Brook, and Spenta came to City College of New York, where he began his thesis work with Bunji Sakita as his adviser.

By 1973, I had already decided that I would shifting from physics to Marxist politics, and was focused on completing my Ph D . So , during our meetings in the USA, Spenta and myself spent more time discussing social subjects rather than physics. I returned to India in 1974 soon after finishing my PhD, and after an interim stint at TIFR , became a full time trade unionist in 1977.

When Spenta returned to India, sometime in 1982, I was fully into trade union work. Though we would now meet more frequently, we hardly discussed what was happening in the world of physics . In retrospect, I feel that I missed something really worthwhile, and I should have taken a little time out for that. But there were so many other interesting things to talk and think about ! Discussing anything with Spenta is not just enjoyable, but always intellectually satisfying. Because there is nothing superficial about him. Spenta is the rare kind of person and precious friend that one can take for granted- honest in opinions, straightforward, generous to a fault, thoughtful, considerate, and always rigorous in his thinking.

It is this rigour in thinking due to which he does not shy away from taking stands on social and political issues. For him, science is not a subject, but a way of seeking truth and validity in all areas of reality, including social reality.

In the early eighties the issues of nuclear weapons, deployment of Pershing missiles in Europe, the US developing a “First Strike” capability, etc. were very much on the international agenda. All over the world, there was a revival of movements for disarmament. In Mumbai, we formed a group called “GROUND”- group for nuclear disarmament. An all India movement called MIND “Movement in India for Nuclear Disarmament” came up, whose members included the late Praful Bidwai and Achin Vanaik.. Spenta and myself were active in both these groups. Both of us held a position, which differed from , and was critical , of a position supporting unilateral nuclear disarmament, which was argued by both Praful and Achin , on moral grounds.

We gave the example of Einstein, who though a pacifist by conviction, wrote the crucial letter in 1939 to President Roosevelt, arguing for the need for research to develop the atomic weapon, in the context of German atomic research under the Hitler regime. We argued that subjects like nuclear weapons cannot be properly considered only within a framework of personal morality, but have always to be discussed in a political context.

Many years later, in 1995, Spenta again contacted me on the same subject . A bilateral Indo-US meeting was being held in Bangalore to discuss non proliferation of nuclear weapons. A high power American team of scientists and generals and an equally high powered team from India (including the late Shri K Subrahmanyam, and Dr. Raja Ramanna) met over a couple of days at NIAS. Spenta and myself wrote a small paper for the occasion titled “ A brief note on non proliferation of nuclear weapons : Need to redefine agenda”. (Current Science, Vol 68. No 9, 10th May 1995.) In this note we pointed out that nuclear weapons are also used, when they are used to threaten, and in that sense nuclear weapons had been used against India by the US. We argued that a necessary step for non proliferation would be for all the nuclear powers including the USA to adopt a position of ‘non first use’, and before NPT, there should be a ‘nuclear non initiation treaty’ (NNIT) between the nuclear powers,. Both of us attended the NIAS conference as participants . If I remember correctly, our position was not received enthusiastically, by either the American participants, nor the official Indian participants, who seemed to have another agenda .

Now, with Spenta's retirement from his official responsibilities, I am really looking forward to have more time for discussions with him on all the old subjects, and also on some simple questions in physics which continue to bother me.. such as- can we calculate the boiling point and melting point of water, as accurately as we can measure them, just like we can do so with the magnetic moment of the electron, or the hyperfine shift. If yes, how ? If not, why not ? I only wish he had decided to retire to Mumbai and not in Bengaluru !

Vivek Monteiro (Secretary, Centre of Indian Trade Unions, Maharashtra)

Luis Alvarez-Gaume, CERN, Switzerland and Simons Center for Geometry and Physics, USA

Dear Spenta,

I am really sorry not to be able to be present at this momentous occasion, but I know that you are surrounded by plenty of friends. As you know we recently made some radical change in our lives, and there a number of issues we have to take care of, and unfortunately Cinzia and I cannot be with you.

I have the impression that I have known you throughout my full professional life. This is a friendship of more than thirty years (one almost feels vertigo).

We have had plenty of physics discussions, occasional collaborations, passionate discussions about politics, art, culture, history, and about all aspects of life. You have deeply enriched my life, and it is a privilege to be your friend.

I admire you for all you have been able to build in India, and what you have achieved in your scientific, administrative and private life. The Tata Institute in Navy Nagar and the ICTS in Bangalore owe a lot to your vision, your perseverance, your boundless energy and your desire to provide great facilities to an excellent and influential Indian Theoretical Physics Community.

Now I guess your time in committees, rushed flights back to India to meet with such and such minister are most likely over, and you can concentrate

once again, with renewed enthusiasm to your research projects. A passion that I am sure will accompany you till your last breath.

From a distance, unfortunately, I want to send you a big hug, and a great salute to honor a man of great achievements, who never stopped being a wonderful, honest, committed and fun person. May our world lines get close again soon in the near future.

Best wishes

SS Jha, Former Director, Tata Institute of Fundamental Research, Mumbai

Dear Avinash & all,

I am delighted to learn about the celebration meeting on January 11, 2017, in honour of Professor Spenta Wadia , at the new ICTS Campus. Yes, Spenta deserves this and more, for all he has done. Please convey my best wishes and warm regards to him.

Thank you for your kind invitation sent to me for joining the celebration on Jan 11.

Unfortunately, I shall not be able to come to Bangalore.

With best wishes,
Sudhanshu Jha

Dileep Jatkar, Harish-Chandra Research Institute, Allahabad

Dear Avinash, Gautam, Rajesh and Shiraz,

I will not be able to attend the meeting in honour of Spenta. I am sorry for this but I hope you will understand my position. I request you to convey my best wishes to Spenta. I have enjoyed working with him a lot and have learnt not only new topics in physics from him but also the distinction between multiple layers of understanding, ranging from completing the computation to understanding the result to seeing the utility of it in future and so on. Needless to say he was innumerable rungs higher on the ladder

and my only regret is that I turned out to be a bad student and did not learn as much as I should have.

With best wishes

Dileep

Spenta Wadia, ICTS-TIFR, Bangalore

Thank you to all of you for being here today and thank you to the organizers Avinash, Gautam, Rajesh and Shiraz for bringing us all together here to celebrate science in this beautiful institution for which I am an incidental excuse.

There is an African proverb, which goes like: 'If you want to go fast go alone, if you want to go far go together'. In my own journey in India since 1982 when I returned from the United States we made some roads by walking together, I think that we did go a good distance, far beyond my own expectations.

There were two main drivers in the beginning: 1) to elevate science in India to the level of the great universities of the west and 2) to use science as an instrument of social action.

At a time like this one can just reflect and thank the truly wonderful people that made my journey possible.

My parents, Rustom and Nergish. From my parents I imbibed their core values of courage and compassion. Their ambition that I should be a learned person making important contributions to knowledge and society, played an important role in the roads I walked in my life.

My teachers...in St Xavier's College, IIT-Kanpur (RR)

My friends from St Xavier's College...Joe, Vivek and Rashid

My mentors...during the different stages of my life: Bunji Sakita, Yoichiro Nambu and David Gross...Sakata/Taketani...Learnt a lot from Tamiaki Yoneya as a graduate student.

People whom I knew and whose science has been a great inspiration to me during my formative years in research: Sakita, Wilson, Polyakov and Nambu.

I am indebted to Abdus Salam for his constant support and encouragement when we began our activity in TIFR.

My students....., those present here... Sanjay, Shanks, Gautam, Anirvan, Justin and Pallab and colleagues Avinash, Sumit, Sunil, Ashoke, Atish, Sandip, Deepak, Mustansir, Sriram, Satya, Sourendu, Subhabrata who contributed an extra-ordinary intellectual environment at TIFR at different stages.

To Ed Witten and Luis Alvarez-Gaume for their friendship and constant support.

I joined hands with several friends to create a platform for science in other parts of the world:

Narain, Fernando Quevedo, Miguel Virasoro, Elias Kiritsis, Eliezer Rabinovici, Bun-Hoon Lee, Kimyeung Lee, Farhad Ardalan, Hessam Arfei, Yoshi Kitazawa and Hiroshi Ouguri

The ICTS was a major collective effort would not have been possible without the support of CNR Rao, Dr Kasturirangan and my core team members Avinash, Mukesh, Uma, Prasanna and others...

ICTS Faculty and Staff....and the International Advisory Board of ICTS both past and present...here David Gross, Michael Green, Srinivasa Varadhan, Ashoke Sen, Nima Arkani-Hamid, Boris Shraiman, Manjul Bhargava, Michael Atiyah, Roddam Narasimhan, Roger Blandford ...

.... MS Narasimhan, KR Sreenivasan, TVR, and Brezin

And Rajesh ... for agreeing to take the baton from me as Director of ICTS.
My in-laws ... for all their care during the long years when ICTS was being constructed

My family...Leena without whom I would be lost and who steered me skillfully through many a turbulent times in my life including the when I started working on the ICTS and as the Reynolds number kept on increasing;

and my children Neha and Varun who are great friends and articulate critics of mine and are a constant source of joy.