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Homage

Satya Sir and APT

Harikrishnan G*

It was on 2nd October 2012 that I received a mail from Satya sir, replying to my proposal for conducting a series of workshops on theoretical physics for the teachers under the banner of Academy of Physics Teachers, Kerala. It was here that he shared his suggestion on the topic of the first workshop (Complex Analysis), his plan of the format of lectures interspersed with tutorials of problem-solving, his vision of the same groups of participants attending a continuous series of workshops. The APT bimonthly workshop series, spanning from November 2014 to April 2019, with more than 50 workshops on diverse topics, was the creation of Satya sir. Without him, it would never have happened. It is no overstatement that, during that period, the name of APT was synonymous with Satya sir.

APT Annual General Body Meeting (April 2017)

To give you an impression of the intellectual environment of the workshops he conducted for APT, let me quote from my letter to the group mail of APT soon after the second workshop in the series, during the Christmas vacation of 2014. This particular workshop, on Linear Algebra, was one of the best (I should add, one of the most magical) in the whole series.

The second workshop on Linear Algebra in the series on Mathematical Physics was beyond all the expectations of the participants. I came to the workshop rather depressed, as the number of the participants was reduced from 43 in the first workshop to 25 in the second. But Satya sir was at his best. I got an inkling when he mentioned before the

*Dr. Harikrishnan G, Secretary, APT, Email: ghkphysics@gmail.com

Third Anniversary of APT Workshop Series (October 2017)

commencement what he was going to attempt, but what followed was really awesome. He avoided the usual text book way of starting from the set of linear algebraic equations and going to determinants and then matrices. He started from the definition of linear vector space and proceeded to show, over the three days, how Dirac's Hilbert space formalism of quantum mechanics, the special functions in differential equations, the reciprocal lattice of solid state physics, the Poincare mapping of polarization vectors in electrodynamics, and many other topics, can be grouped under one over-arching theme of linear algebra. I had never suspected this profound reach of linear algebra. The odd 25 participants were really lucky to get stumbled on to this gold mine. In between the discussion on linear algebra, we got little gems like the one-line-definition of Quantum Mechanics and the conceptual map of Quantum Mechanics. The way he connected reciprocal lattice and direct lattice with the general theme of linear vector space was like the opening of a wondrous window on to solid state physics. We, particularly the resident participants who were blessed with his continuous company, also collected from him many anecdotes and snippets on teaching. Merely watching him in action is a pleasure to cherish and a lesson in teaching. I hope we make the most of these treasures.

That was him, as a teacher, as a person. His personality was inseparable from his vocation as teacher. Even in his student days at the Regional Institute of Education, Mysore, he was teaching his classmates. And he never stopped teaching since. During his research years at IGCAR, Kalpakkam, he started the Sunday Physics Class, teaching physics for free to anyone who was willing to attend. He conducted the classes singlehandedly for many years, and the great legacy of the Sunday Physics Class still lives on through his friends and students. He was still a research scholar when he came for the first time to Kerala in 1996 to teach a group of physics teachers in one of those mandatory refresher courses for promotion, at the University of Calicut. He was a last-minute substitute for his two research supervisors at IGCAR, Prof. M C Valsakumar and Prof. K P N Murthy, who

trusted this young researcher enough to hand over to him the responsibility of teaching Group Theory for one and Statistical Mechanics for the other. That whole batch of college teachers, many years senior to him, were so entranced by his teaching style that he was continuously on demand since, to teach at the yearly refresher courses at Calicut University and to conduct seminars at different parts of Kerala. In that first visit to Calicut University, he had come to our MSc class to interact with us students. A statement he made during that first contact has stayed with me over the years: “Wavefunction is an infinite dimensional vector”. A magical statement. He had a penchant for such succinct statements, capturing the magic of physics.

Honorary membership to Dr. S.V.M. Satyanarayana (June 2015)

Prof. S V M Satyanarayana became an honorary member of APT in 2015. He always cherished his intellectual association with APT. What Satya sir had been doing over the past three decades was spreading the enthusiasm for physics among the underprivileged and unglamorous sections of students. In the years to come, generations of physics teachers in India will emulate the model set by Satya sir with conviction and passion. Their number is slowly on the rise, and we, the APT fraternity, are grateful to be part of this transformation. For us, he has always been, and will ever remain, our dear Satya sir.