

# Editorial

*B Sury, Associate Editor*

Some time back, a colleague told me, “Our job is just to do research. If we do it well, education will automatically take care of itself.” Enter my cousin – a university ranker in her undergraduate mathematics programme – and asks, “So, what do you people actually do?” My colleague happily settled down to a wonderfully eloquent monologue about ‘fundamental research’, ‘satisfying the human spirit’, ‘spirit of enquiry’, etc., when my cousin interrupted him, “Yes, but what do you people actually do?” My colleague stopped in his track just for a moment and continued with more élan about ‘pure science *vs* applied’, ‘theory supporting experiments’, etc., and happened to mention the phrase, ‘guiding a PhD’ when my cousin cheerfully butted in, “Oh! So, you are teaching. Why didn’t you say so before?” and moved off, having lost all further interest in the topic. My colleague was thoroughly nonplussed and looked exasperatedly at me. He said accusingly, “You claim to be interested in education but, instead of explaining to her what we do, you are thinking about your *Resonance* meeting or whatever.” I merely smiled.

With attitudes such poles apart, one may well wonder how a journal like *Resonance* could play a role in bridging such a gap. The scope of *Resonance* as envisaged in the beginning was that it is primarily meant for students and teachers at the undergraduate level although some articles may be of a higher level. In reality, several articles appear to be of a level which draws criticism for being too highbrow. Descriptive articles in biology are often the ones most appreciated by readers. Apparently, not many authors make a serious effort to communicate with a non-expert. A more pertinent reason for the reader’s malaise is that the average undergraduate student or even teacher, is ill-equipped to absorb an off-beat presentation as it is not easy to let go of the learning-by-rote mode drilled into her throughout her educa-



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tion. There are visiting students' Research Programmes at some elite research institutes but there are probably no similar opportunities for young, motivated college teachers.

In mathematics, perhaps the best impact has been made by the Mathematics Training and Talent Search Programme. Under this, each summer, an institution organises and conducts mathematics courses at different levels ranging from the first year of undergraduation to the final year of postgraduation. Participating students are from all over India and what this has accomplished is that at the entrance to the postgraduate programme or to the PhD programme, students have a uniformly better background.

This issue of *Resonance* features the astronomer Beatrice Tinsley who pioneered work on understanding how lives of stars affect galaxies. There are three pieces in this issue, each of which makes for lovely reading – a book by her father has been reviewed, the interesting Article-in-a-Box by Virginia Trimble and the technical-yet-lucid article on the mutation of galaxies. One cannot help but marvel at this path-breaking scientist who lived her life intensely; she adopted two children, immensely inspired students and younger scientists and did all that before her death at the untimely age of 40.

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There are two exciting classroom notes which have to do with the transit of Venus to occur on June 8th – a rare event never to have occurred in the 20th century. One is by Nirupama Raghavan, Ex-Director of the Nehru Planetarium, Delhi and the other is by B S Shylaja, Education Officer of the Bangalore Planetarium. Both of them are active in science education and propose simple experiments which can be performed at home. In fact, the authors provide a unique opportunity to students to write their names in history by carrying out the experiments and reporting back their observations

