CORRESPONDENCE

Spreading knowledge of classical India mathematics

Lord Russell wrote that science attempts to establish a causal relation between results and antecedent conditions, while religion promises miraculous results no matter what the antecedent conditions! Indians in the 21st century are afflicted by this latter malaise, i.e., inability to separate the contributions of our ancestors from the myth that surrounds them.

Narasimha envisages a conscious effort by his colleagues to spread this gospel globally. At the risk of beating a dead horse, let me briefly restate the obvious. The industrial revolution skirted India entirely—no steam engine, no printing press, no cotton gin (the three accepted milestones of the Industrial Revolution). This circumstance did not prevent India from building the Taj Mahal, Hoysala Temple, Ajanta and Ellora, etc. Can we imagine designing and completing such structures without the aid of laser, e-mail, blueprint or sms today?

Our grade school books should inform children at an impressionable age about the ‘real’ scientific contributions of our ancestors in a simple way, to neither glorify nor trumpet our greatness—and without launching into a national debate on the language employed. All Indian languages support constructs rich enough to depict the real contribution of our ancestors.

At all high schools in the US and other countries, award an Aryabhatta medal for excellence in mathematics, and computer science doctoral thesis with a Panini Medal. They are of Indic contributions to science.

Make students plot planetary positions by placing stones of various heights and thus defining a vector converging on a planet—a procedure devised by Madhava near the Karnataka–Kerala border. (At IIT-Ropar I had my freshmen plot planetary positions using this method and verify the ancient method by a modern telescope.) Plan a field trip to the place.

Indic mathematicians looked upon differential equations as algebra of rates.

Regarding reckoning elapsed time, if a train leaves Jammu on Monday at 6 p.m. and arrives at Kanyakumari on Thursday at 5 a.m., to avoid wrap-around IBM chose arbitrarily 1 January 1960 as the starting point of time, making elapsed time a simple difference without the cumbersome wrap-around. Indic mathematicians chose the occurrence of solar eclipse as the starting point. Incidentally, several fierce debates ensued between the Connecticut Indic School and the Chennai Indic School as to what constitutes a valid eclipse observation (M. D. Srinivasan, IIT-Madras, Chennai, pvt commun.).

Robert Kanigel’s book ‘The Man Who Knew Infinity’ should be translated into all Indian languages and should be widely circulated. The book has been translated into 21 languages worldwide. And Meera Nair is making a movie on the life of Ramanujan.

This is a movement I propose to make our Indic mathematics a household word globally.


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