Colloquium
Tuesday, October 19th 2010

Prof Dr Ravi Kulkarni
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"Development of the Idea of Symmetry through Geometric Examples"

"Space, Number and Symmetry are three categories of mathematical thought. That is how we, often subconsciously, think in mathematics before we find expression for our thought using a language. Until the mid-nineteenth century, only space and number were recognized as categories of mathematical thought. But after the work of Galois, Jordan, Frobenius, Burnside etc., on one hand, and the work of Lie, Killing, Cartan, etc., on the other, Hermann Weyl cogently argued that symmetry should also be recognized as a category of mathematical thought.

The Space-Number-Symmetry (SNS) categories of mathematical thought may be compared to the categories of physical thought, namely Space, Time and Matter (STM). But even STM are finally interpreted in terms of SNS. As we have come to recognize a re-interpretation of STM in terms of SNS in the twentieth century, arising with association of time with light-signals, and the experimental fact that the speed of light is finite, has led to a revolution in physics. Space, number, time, matter have been present in all theory-building in mathematics, physics, chemistry and biology, quite consciously. But symmetry is also present, often subconsciously, in all theory-building.

In this talk Prof Kulkarni would illustrate this in the discussion of the history of three classical geometries, from a modern perspective."

Venue: Seminar room, Pre-fab structure, nxt to Anna Bhau Sathe Bhavan, University Campus, Kalina.

Time: 16:30 *hrs*