

Editorial

N Mukunda, Chief Editor

With the appearance of this issue, *Resonance* completes six months of existence. At this time we express our sincere thanks and appreciation to Srinivas Bhogle who joined us when plans for *Resonance* were being made, and offered to work as Production Editor. He and his colleagues A S Rajasekar, V Ravi and R Guruprasad, all from National Aerospace Laboratories, Bangalore have brought skill and imagination to the design, layout and general appearance of *Resonance*, and given it a truly distinctive quality. We editors have learned much from them in the process, and hope to maintain the standards of production set by them — may be after a while do even better, which should please them too. As they leave us, we make the transition to a team wholly within the Academy. This may occasion some delays in the appearance of one or two issues, but hopefully no more.



Kapil Paranjape, in his series on Geometry, deals in this issue with the historic June 1854 inaugural lecture of Georg Friedrich Bernhard Riemann at Gottingen, titled "On the hypotheses which lie at the foundations of geometry." It is humbling to realise that Riemann gave this lecture, which so profoundly influenced the growth of both mathematics and physics for succeeding generations, so that he would then be permitted to teach at the University! His ideas were carried forward by Elwin Bruno Christoffel, and especially by the Italian geometers Gregorio Ricci - Curbaatro and Tullio Levi-Civita, culminating in their Absolute Differential Calculus. All this came in handy — "just what the Professor ordered" — when Albert Einstein was developing his general theory of relativity; though to be precise one must point out that Einstein's inspiration sprang from physical principles and ideas, and he was later introduced to the available mathematical tools by his friend Marcel Grossmann.

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