Editorial

N Mukunda, Chief Editor

With the coming of the New Year, we move into our second volume, and a new structure for our editorial team. As the song goes – "Ring out the old, ring in the new". If – as a take off on Darwinian principles – survival is a proof of fitness, we must be doing something right, though we can always get fitter! This we promise to always try to do.

The year just past was the birth centenary of our most gifted ornithologist and "whole organism biologist" ever, Sálim Ali. In this issue we celebrate his life and work in many ways – an *Article-in-a-Box* on him written with a personal touch by Zafar Futehally; a review of his autobiography "The Fall of a Sparrow" by Karthik Shanker; his own article in the Journal of the Bombay Natural History Society written half a century ago describing his "Ornithological Pilgrimage to Lake Manasarowar and Mount Kailas"; and a portrait on the cover. We hope many young readers come to know more about Sálim Ali and read with pleasure his autobiography and many other books on birds of our subcontinent, all fortunately easily available at modest prices.

Goswami continues his series on the problems of weather prediction and describes the myriad factors that contribute to the woes of the weatherman. This reminds one of a cartoon by R K Laxman many years ago – a group of well-dressed office-goers standing in a bus-stop queue in Mumbai on a bright and sunny day, pointing to the lone chap with an umbrella in his hand and saying : "He must be from the Met Office." Goswami's account tells us why it is difficult *even in*

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principle to predict the weather beyond a two-week limit, and makes us commiserate and sympathise with the man with the umbrella. The chart giving the space and time scales of important weather phenomena – ranging from one to a hundred thousand kilometers and from a second to a fortnight, and taking in tornadoes, cyclones, thunderstorms and westerlies – is both effective and informative.

Turning to mathematics, we have the first in a two-part series on "The Vacillating Mathematician" by Krishna Athreya. He tells us of the kind of trouble you can get into if you constantly change your mind, and even more if the changes are random. In a "painless" way this allows him to introduce the ideas of Markov processes and chains, the Chapman-Kolmogorov equation and the like, which find applications in such widely different situations as telephone traffic, stock prices and congestion on the information highway. Following this Musili presents a delightful discussion of the notions of countable and uncountable sets, the very different ways in which the rational and the irrational numbers are embedded within the continuum of real numbers – all this in the course of explaining Nakula's incredible talent of riding in the rain without ever getting wet! With touches of humour lacing his account, Musili presents good evidence to support his claim that Veda Vyasa who composed the Mahabharata was an applied topologist!

Ajay Ramdoss from India won a gold medal at the 37th International Mathematics Olympiad held at Mumbai last year. He describes the answers he gave to the problems posed at this competition. It is heartwarming to read that these problems prepared by the Indian Shortlisting Committee made this Olympiad vastly superior to all earlier ones. Notwithstanding all this, Ramdoss has now opted for Computer Science!