

Editorial

A beautiful mind has left us unexpectedly on May 23, 2015. John Forbes Nash Jr. (86) was the recipient of the coveted rare doubles Abel and Nobel Prizes. Nash was undoubtedly one of the most recognizable Mathematicians outside the domain of Mathematics in the 20th century. His popularity was mainly due to two reasons: the Nash Equilibrium and the biography and biopic, *A Beautiful Mind*. A genius, he was mythologized as one who would scribble arcane equations on blackboards of Princeton in the middle of the night. According to the Abel Citation, he gave "striking and seminal contributions to the theory of nonlinear partial differential equations and its applications to geometric analysis."

In reality, his mind was not that beautiful always. He found it hard to have equilibrium in life. He became paranoiac and suffered from delusions for many years and hence considered dead in the academic circles for quite a long period. However, he recovered to the state of beauty and equilibrium and went on to win the Nobel Prize for Economics in 1994. To every researcher, not just mathematicians alone, he is a book to read and re-read. His life helps us learn that resurrection is possible even if we reached absolute nothingness.

This issue of *Mapana Journal of Sciences* comes with three research articles from Fluid Mechanics and two from Graph Theory. We introduce A. Kalyani and P. Femlin, two young women researchers. Kiran and Kalyani write on the effect of non-uniform temperature gradient on the onset of Rayleigh-Bénard-Marangoni-Magneto-convection in a Micropolar fluid with Maxwell-Cattaneo law. The second article by Pranesh et al. is on the effect of Suction - injection combination on the onset of Rayleigh - Bénard electroconvection in a Micropolar fluid.

The third paper by Manjunath and Sreelaksmi is a study of the velocity profiles in a hydrodynamic flow and heat transfer in a Newtonian fluid over an exponentially stretching sheet. They use the Navier Slip Condition at the boundary.

In the Graph Theory section, Tabitha and Reddy give an exposition of the breadth of an undirected simple connected graph. Femlin and Mayamma explore graphs having same domination number and independent domination number. Several realization problems and graphs with every dominating set is a total dominating set are presented creatively.

This issue of Mapana is a mix of articles from the two not so closely related areas in Mathematics, viz., Fluid Mechanics and Graph Theory. A mix of both established and budding researchers is another specialty. We hope that the readers would enjoy reading articles.

Joseph Varghese

Issue Editor