

EDITORIAL

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The Hardy-Ramanujan journal was started by Professor K. Ramachandra, together with R. Balasubramanian, in 1978. A very well-known number theorist, Ramachandra was on the faculty in the School of Mathematics at the Tata Institute of Fundamental Research, Mumbai for almost four decades during 1958 to 1995. During this time, he made important research contributions of his own, as well as training a number of students (including R. Balasubramanian) who went on to establish their own mark in the Indian mathematical landscape.

Throughout his career, Ramachandra was profoundly influenced by the mathematics and the life of Srinivasa Ramanujan. He also attached great significance to the meeting of Hardy and Ramanujan and their collaboration. These influences were clearly reflected in his approach to mathematics, both in research and teaching. They were also clearly reflected in his general attitudes towards mathematics. And, of course, they were reflected in his naming of the journal.

Through the journal, Prof. Ramachandra aimed to provide a venue for the publication of works in number theory that highlighted topics of interest to himself and related to the areas in which Ramanujan had worked and in which Hardy and Ramanujan had collaborated. By doing so, he hoped to encourage and facilitate further work in these areas.

Ramachandra's dedication for this cause could be clearly seen in his steadfast and solitary efforts to finance the journal, to attract articles for the journal and to bring out issues of the journal as regularly as possible. With his passing in 2011, several mathematicians felt that this legacy should not be allowed to disappear. With the strong advocacy of C. S. Aravinda from the TIFR Centre for Applicable Mathematics, Bangalore, a small editorial board consisting of Aravinda together with R. Balasubramanian (IMSc), Ram Murty (Queen's), Michel Waldschmidt (Paris VI), and myself decided to try to continue this journal. The current issue is the first fruit of this effort.

This issue represents a combined 2011-2012 issue and is appearing approximately at the time (August 18, 2013) that Professor Ramachandra would have turned 80. In recognition of Ramachandra's efforts for this journal, the issue is respectfully dedicated to him. We expect that subsequent issues will come out approximately once a year in December.

This first issue under the new editorial board highlights some aspects of Ramachandra's life and work. In particular, we have reprinted (with the kind permission of the Mathematics Newsletter of the Ramanujan Mathematical Society), several articles giving reminiscences by students, colleagues and friends. This issue also contains an old hand-written manuscript by Ramachandra entitled 'Mathematical Reminiscences: How to keep the pot boiling?' which has been edited for publication by K. Srinivas of IMSc.

In addition to this, there is a new article by Ram Murty on Ramachandra's work in algebraic number theory, specifically his construction of what today are called 'Ramachandra units', and a reprinting (with the kind permission of the Ramanujan Mathematical Society) of an article by Michel Waldschmidt on Ramachandra's work in transcendental number theory. This article first appeared in the 70th birthday volume for Ramachandra. Future issues will feature articles on other aspects of Ramachandra's work.

The overall aim of the HRJ remains the same as when it was founded, namely, to provide a venue for the dissemination of research contributions in number theory, especially – though not exclusively – in the Indian context. In the light of Professor Ramachandra's passion for both research and teaching, the Journal will publish both original contributions, as well as a number of Research-Expository articles describing important advances in the subject. We hope that students and researchers of number theory in India and beyond will benefit by the articles that appear here.

We are grateful to Smt. Sandhya of NIAS, Bangalore who served as Professor Ramachandra's assistant and was instrumental in the production and circulation of the Hardy-Ramanujan Journal until 2010. Her editorial assistance in bringing out this issue is greatly appreciated.