

HARDY-RAMANUJAN JOURNAL

Special Commemorative volume in honour of Alan Baker

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From the Editors. . .

We are slightly behind schedule in bringing this Volume 42 of HRJ, dedicated to the warm memory of Alan Baker who passed away two years ago on 8 February, 2018. Born on 19 August 1939, Baker would have turned 80 in 2019.

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EDITORIAL



Figure 1: Alan Baker

Professor Alan BAKER will turn 70 on 19-08-09. (He was born on 19-08-1939). Ever since myself and R.Balasubramanian started, the periodical "Hardy-Ramanujan Journal" in 1978, Professor Baker has been encouraging us very much. We dedicate with great pleasure this volume (volume 32 to appear on 22nd December 2009) to his 70th Birthday.

From the Editorial by K. Ramachandra of Volume 32 of HRJ also dedicated to Alan Baker on his 70th birthday.

The response to our invitations has been deeply satisfying, as is evident from going through the following pages. The reminiscences were varying in content and length, displaying the warmth and influence Baker had on them. The first such response that we received is the following recollection of Roger Heath-Brown, a direct PhD student of Alan Baker:

Alan Baker taught me when I was an undergraduate, both as a lecturer and as a college "supervisor" - working through weekly exercises with me and a fellow student. However it was when I started as his PhD student in 1974 that I got to know him a little better. He began by getting me to read all the number sections of "Mathematical Reviews" from their beginning in 1940 to date, to learn what had been proved, and to find out what interested me. That kept me busy for a month or two, but I wonder how long that would take now? Prime number theory was not his specialist area, but when I announced that this is what I wanted to do he was happy for me to continue. I would meet with him once every 3 weeks or so to report on my progress, and he would suggest problems for me. This was definitely "light touch" supervision. Perhaps his greatest influence came when

K. Ramachandra, one of the founding editors of HRJ, had a penchant for celebrating birthdays of people whose works he admired, and would not miss an occasion to dedicate his own efforts in their honour. Perhaps this was Ramachandra's own way of celebrating the beauty of mathematics itself, through its signal torchbearers who brought to bear their unique perspectives, enlightening the ardent practitioners with deep insights.

Ten years ago, about a year before his own passing away in January 2011, Ramachandra dedicated Volume 32 of HRJ to Baker's 70th birthday. It isn't a mere coincidence that we are dedicating the present volume commemorating his 80th birthday, in the deeply felt absence of both Baker and Ramachandra.

Academic descendants and admirers of Baker were invited to contribute papers to this special volume, as well as record reminiscences of their associations with Baker.

it was time to write my work up, since I had no idea how to produce a good paper. He impressed on me the importance of a well-worked introduction; setting out the historical and theoretical background to one's problem, explaining its importance and connections to other areas, detailing one's results, comparing them what others had done, explaining the key ideas of the proofs, and highlighting what was new. That was all good advice, which I would in turn emphasize to every student today. I learned from him to write simply and clearly - He told me "If you have two things to say, first say one and then say the other" (meaning, don't intertwine the two ideas!) He had beautifully clear handwriting and would submit handwritten manuscripts for publication, despite the standard instructions to authors requiring typewritten copy. Before the days of word processing it was important to get one's thoughts into a clear logical order before writing them down, and his papers were a model of clarity.

We never talked about life outside of academia – he was a rather private person – but I will remember him with fondness, and I thank him for bringing me into the world of mathematics.

Further enthused, and inspired, by Heath-Brown's quick response, we followed up in earnest collecting reminiscences, resulting in the three warm and vivid reminiscences articles, and ten researched articles that we are delighted to publish in this volume as our special tribute to a great mathematician of our times. We are grateful to all of the contributors and the knowledgeable referees for gracing our effort, investing their crucial time, energy and patience. It is with immense pleasure that we present this special issue before you.

We keenly look forward to your continued support by way of submitting your works to HRJ. Paper submissions can be done using the Episciences online portal, and detailed instructions for authors available at <https://hrj.episciences.org>.