# IN MEMORIAM
## KLAUS FRIEDRICH ROTH 1925–2015

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Klaus Friedrich Roth, who died in Inverness on 10 November 2015 aged 90, published five papers in *Mathematika* during his distinguished career, including three of his most influential. The 1955 paper "Rational approximations to algebraic numbers" was his legendary solution of the famous Siegel conjecture concerning approximation of algebraic numbers by rationals, for which he was awarded the Fields Medal in 1958. The 1965 paper "On the large sieves of Linnik and Rényi" was a huge breakthrough and, together with the almost contemporaneous paper of Bombieri also published in *Mathematika* in the same year, continues to have a profound impact on the development of analytic number theory today. The 1954 paper "On irregularities of distribution", although cited much less than the other two, was nevertheless considered by Roth to be his best

work, and paved the way for what is now known as geometric discrepancy theory, a subject at the crossroads of harmonic analysis, combinatorics, approximation theory, probability theory and even group theory.

The editors of *Mathematika* resolved in early 2016 to dedicate an issue of the journal to celebrate the life and work of Roth. We feel very privileged to have been invited to act as special editors for this project, and are delighted with the many excellent contributions that we have received from friends and colleagues of Roth to make this a very special issue. We also thank Andrew Granville for his help with some of the editorial work.

It was a coincidence that the famous *abc*-conjecture was first announced in an open problem session during the Symposium on Analytic Number Theory held at Imperial College in 1985 on the occasion of the sixtieth birthday of Roth. As no formal proceedings were published and the very brief records were only available to the participants of the symposium, this has caused much inconvenience to the many authors who wish to cite it. We are therefore particularly pleased that David Masser has written some brief anecdotes on this occasion. His note "Abcological anecdotes" follows this introduction, and will serve as a reference point for this historical moment in the history of our subject.

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