

ANNOUNCEMENTS

- 1) We are happy to announce that PROFESSOR ALAN BAKER, F.R.S., of TRINITY COLLEGE, CAMBRIDGE, U.K., an honorary fellow of the HARDY-RAMANUJAN SOCIETY completed his FIFTY-FIRST YEAR on 19 AUGUST 1990. This volume is dedicated to the celebration of his FIFTY-FIRST BIRTHDAY.
- 2) With reference to the paper "*An Ω -result related to $r_4(n)$* " published in Hardy-Ramanujan J., 12 (1989), 20-30, by S.D. ADHIKARI, R. BALASUBRAMANIAN AND A. SANKARANARAYANAN the following remark is to be added. The weaker result $P_4(x) = \Omega(x \log \log x)$ was first proved by A. WALFISZ (Ref. Math. Zeitschr. 26 (1927) p. 39). This was kindly pointed out by PROFESSOR A. SCHINZEL. Recently S.D. ADHIKARI (jointly with Y.-F.S. PETERMANN) has proved $P_4(x) = \Omega_-(x \log \log x)$. This taken with the result $P_4(x) = \Omega_+(x \log \log x)$ due to the three authors mentioned first, completes the proof of $P_4(x) = \Omega_{\pm}(x \log \log x)$.
- 3) With reference to the paper "*On the zeros of the Riemann zeta-function and L-series-II*" published in Hardy-Ramanujan J., 5 (1982), 1-30 by R. BALASUBRAMANIAN AND K. RAMACHANDRA the following remark is to be added. The results of part B are correct. No doubt the result of part A is bound to be correct. But the gain in Lemma 5 is not enough for the proof of the result in Part A. (The authors hope to fill the gap sometime in future). This was kindly pointed out by DR. G. REVESZ, a student of PROFESSOR G. HALASZ.
- 4) With reference to the paper "*Some remarks on the mean-value of the Riemann zeta-function and other Dirichlet series-III*" published in Annales Acad. Sci. Fennicae Ser AI Math., 5 (1980), 145-158 by K. RAMACHANDRA the following remark is to be added. Results like

$$T^{-\lambda} \int_T^{T+T^\lambda} |\zeta^{(\ell)}(\frac{1}{2} + it)| dt \ll (\log T)^{\frac{1}{2} + \ell}$$

where $\ell \geq 0$ is an integer and $\frac{1}{2} < \lambda \leq 1$ proved in part A are correct as they stand. The results in part B with $\frac{1}{4} < \lambda \leq \frac{1}{2}$ (proved on the assumption of Riemann hypothesis or a weaker hypothesis) are also correct. But after Lemma 10 (in addition to the arguments of the paper) we have to use the two variable convexity theorem of R.M. GABRIEL in the manner of D.R. HEATH-BROWN with some modifications. This was noticed by K. RAMACHANDRA.

- 5) We regret to announce the passing away of PROFESSOR R. SITARAMACHANDRARAO (1-4-1948 TO 9.8.1990), an expert in Analytic Number Theory. He was responsible for establishing a school in the subject at ANDHRA UNIVERSITY, WALT AIR, INDIA. His work on the mean-value of the Hurwitz zeta-function (to appear in J. of Number Theory) was recognized by the Hardy-Ramanujan Society and the society awarded a prize to him for this work. PROFESSOR R. SITARAMACHANDRARAO was an active member of the Hardy-Ramanujan Society. His untimely death is a serious loss to Indian Analytic Number Theory.