

## ANNOUNCEMENTS

**DISTINGUISHED AWARDS OF THE HARDY-RAMANUJAN SOCIETY.** The distinguished awards of the Hardy-Ramanujan Society have been conferred on the following mathematicians.

1. Professors Shituo Lou and Qi Yao for their work  $p_{n+1} - p_n \ll p_n^{\frac{6}{11}+\epsilon}$ .
2. Professors A. Perelli and J. Pintz for their joint work : On the exceptional set for Goldbach's problem in short intervals,  $G(x+h) - G(x) = \frac{1}{2}h + O(h(\log x)^{-A})$  for  $h = x^{\frac{1}{10}+\epsilon}$ . (To appear in the Journal of the London Mathematical Society).
3. Professor Trevor D. Wooley for his work

$$G(k) \leq k \log k + k \log \log \log k + O(k).$$

Reference to his work is : Large improvements in Waring's problem, *Annals of Mathematics*, 135 (1992), 131-164.

4. Professor N. Zvorotnyi for his work

$$\int_0^T \left| \zeta\left(\frac{1}{2} + it\right) \right|^4 = TP_4(\log T) + E_2(T)$$

where  $P_4(\log T)$  is a certain polynomial (in  $\log T$ ) of degree 4 and  $E_2(T) = O(T^{\frac{3}{4}+\epsilon})$ .

5. Professors Y. Motohashi and A. Ivic for their work  $E_2(T) = \Omega(T^{\frac{1}{2}})$ .
6. Professors M.N. Huxley and G. Kolesnik for (i) their joint work  $|\zeta(\frac{1}{2} + it)| < t^{\frac{17}{105}+\epsilon}$  and next (ii)  $|\zeta(\frac{1}{2} + it)| < t^{\frac{89}{570}+\epsilon}$  due to M.N. Huxley

(this work is yet to appear) both valid for  $t \geq t_0(\varepsilon)$ . The reference to their joint work is : Exponential sums and the Riemann zeta-function-III, Proc. London Math. Soc., 62 (1991), 449-468.

7. Professor H. Mikawa for his work : On the exceptional set in Goldbach problem,  $G(x+h) - G(x) = \frac{1}{2}h + O(h(\log x)^{-A})$ , for  $h = x^{\frac{7}{16}+\varepsilon}$ . This work which is a further improvement on announcement 2, was done (independently around the same time) by a completely different method. The reference to this work is Tsukuba J. Math., vol. 16, No.2, (1992) 513-543.

Single authors will receive \$ 40 and joint authors \$40 each. The award is meant for the purchase of a volume of the collected works of mathematicians like S. RAMANUJAN, G.H. HARDY, J.E. LITTLEWOOD, I.M. VINOGRADOV, H. DAVENPORT, P. TURÁN and Yu. V. LINNIK. The magnitude of the award is not important. The award is an indication of the respect of the Society to the work of the authors.