HARDY-RAMANUJAN SOCIETY

FOUNDED 1978 – 1979

PRESENT ADDRESS:

C/o. Prof. K. RAMACHANDRA,
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Date 18-10-2001

DEAR PROFESSOR WADIM ZUDILIN, I HAVE GREAT PLEASURE IN COMMUNICATING TO YOU THE DECISION OF THE HARDY-RAMANUJAN SOCIETY TO CONFER ITS DISTINGUISHED AWARD FOR THE FOLLOWING WORK OF YOURS.

THEOREM: SET AS USUAL $\zeta(s)=\sum_{n=1}^{\infty} n^{-s}$ $(s>1)$. THEN AT LEAST ONE OF THE FOUR NUMBERS

$$\zeta(5), \zeta(7), \zeta(9), \zeta(11)$$

IS IRRATIONAL

PLEASE FIND ENCLOSED HEREWITH TWO BOOKS.

WITH BEST REGARDS,

YOURS SINCERELY
K. Ramachandra
(K. RAMACHANDRA,
PRESIDENT, HARDY-RAMANUJAN SOCIETY)

P.S: EARLIER WE USE TO AWARD SOME MONEY (AND STRESS THAT THE AMOUNT MAGNITUDE IS UNIMPORTANT AND THAT WHAT IS IMPORTANT IS THE RESPECT OF THE SOCIETY TO YOUR WORK) AND REQUEST THEM TO PURCHASE THE BOOKS OF MATHEMATICIANS LIKE HARDY, LITTLEWOOD, VINOGARDOV. DUE TO EXCHANGE PROBLEMS WE HAVE STOPPED GIVING MONEY.

WE WILL ANNOUNCE THIS AWARD IN
HARDY-RAMANUJAN JOURNAL VOL. 24 (2001)
KINDLY SEND A REPRINT FOR SOCIETY'S RECORDS.

E-MAIL KRAM@MATH.TIFRBNG.RES.IN
KINDLY ACKNOWLEDGE THE RECIEPT OF THIS PACKET BY E-MAIL.

Hardy-Ramanujan Journal
Vol. 24 (2001) 20-21.

ANNOUNCEMENTS

DISTINGUISHED AWARDS

1.Sri AJAI CHAUDHRY has been awarded the Distinguished Award of the Hardy-Ramanujan Society for the following two results.

a) *Every integer m can be expressed as a sum of twelve seventh powers of integers, i.e.*

$$m = \sum_{i=1}^{12} m_i^7 \quad (m, m_i \text{ integers;positive negative or zero})$$

b) *Every rational number R (+ve, -ve or zero) can be expressed as a sum of eight seventh powers of rational numbers R_i (+ve, -ve or zero). i.e.*

$$R = \sum_{i=1}^{8} R_i^7.$$

Ref: On sums of seventh powers. Journal of Number Theory 81(2000) no.2, 266-269.

REMARKS. The result a) above is an improvement of a result with fourteen seventh powers due to W.H.J.FUCHS and E.M.WRIGHT, which is more than sixty years old. Sri AJAI CHAUDHRY was the Indian Ambassador to Singapore and later to Beirut. He is now the Indian Ambassador to Brunei.

2) Professor WADIM ZUDILIN has been awarded the Disnguished Award of the Hardy-Ramanujan Society for the following result. *At least one of the four numbers*

$$\zeta(5), \zeta(7), \zeta(9) \text{ and } \zeta(11)$$

is irrational.

Ref: Russian Mathematical Surveys Vol. 56 No.4 (2001) Russian Pages 149-150. The paper of Professor Tanguy Rivoal (mentioned in Hardy-Ramanujan Journal Vol 23, (2000) p.20) will appear in Acta Arithmetica). In the mean while Professor Rivoal has proved that one atleast of the 19 numbers

$$\zeta(5), \zeta(7), \zeta(9), \zeta(11), \zeta(13), \zeta(15), \zeta(17), \zeta(19), \zeta(21)$$

is irrational