## Zbl 466.10028

Erdős, Paul

Sur l'irrationalité d'une certaine série. On the irationality of a certain series. (In French)

C.R. Acad. Sci., Paris, Ser. I 292, 765-768 (1981). [0764-4442]

Let  $a_1 < a_2 < \cdots < a_n < \ldots$  be a sequence of integers such that  $a_{n+1}-a_n \to \infty$ as  $n \to \infty$ . It is shown that  $\sum_n a_n 2^{-a_n}$  is irrational. The proof is elementary and ingenious and complemented by numerous remarks and suggestions on related questions.

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Classification: 11J81 Transcendence (general theory) Keywords: sequence of integers; irrational sum