

## On the values of the Riemann zeta function at the Gram points

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The Gram point  $t_n > 0$  in the theory of  $\zeta(s)$  may be interpreted as the value of positive parameter  $t$  which corresponds to  $n$ th point of intersection of the curve  $(x(t), y(t))$ ,

$$x(t) = \operatorname{Re} \zeta\left(\frac{1}{2} + it\right), \quad y(t) = \operatorname{Im} \zeta\left(\frac{1}{2} + it\right)$$

with horizontal axis.

One may ask are there some subsequences  $\{n_k\}$  such that these points of intersection runs to  $+\infty$  (or to  $-\infty$ ) along the horizontal axis as  $n_k \rightarrow +\infty$ ?

In this report we shall give an answer to this question and speak about some related results obtained recently by J.Steuding, J.Kalpokas and the author.