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fundació FERRAN SUNYER I BALAGUER

Prof. P.K.Kamthan
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University of Waterloo
Waterloo, Ontario
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Dear Professor Kamthan,

I received your kind letter of July 25.

The explanation of the proof of the lemma 1 I think that it is correct except the step (ii), i.e. the proof that

$$\frac{1}{2T} \int_{-T}^T |f(\sigma + ia + it)|^\sigma dt$$

tends to $A_\sigma(\sigma)$ uniformly in a . The proof of this step is the following: Since $|f(\sigma + it)|^\sigma$ is almost periodic, for any $\varepsilon > 0$ there exists a $l=l(\varepsilon)$ such that for every a there is a τ such that

$$a - l < \tau < a + l$$

and

$$||f(\sigma + it + i\tau)|^\sigma - |f(\sigma + it)|^\sigma| < \varepsilon .$$

Then

$$\begin{aligned} |A_\sigma(\sigma) - \frac{1}{2T} \int_{-T}^T |f(\sigma + ia + it)|^\sigma dt| &\leq \\ &\leq |A_\sigma(\sigma) - \frac{1}{2T} \int_{-T}^T |f(\sigma + it)|^\sigma dt| + \\ &+ | \frac{1}{2T} \int_{-T}^T |f(\sigma + it)|^\sigma dt - \frac{1}{2T} \int_{-T}^T |f(\sigma + i\tau + it)|^\sigma dt | + \\ &+ | \frac{1}{2T} \int_{-T}^T |f(\sigma + i\tau + it)|^\sigma dt - \frac{1}{2T} \int_{-T}^T |f(\sigma + ia + it)|^\sigma dt | \leq \end{aligned}$$

$$\leq |A_{\delta}(\sigma) - \frac{1}{2T} \int_{-T}^T |f(\sigma + it)|^{\delta} dt| + \varepsilon + \frac{21M}{2T}$$

where $M = \sup_t |f(\sigma + it)|^{\delta}$. This proves that

$$\frac{1}{2T} \int_{-T}^T |f(\sigma + ia + it)|^{\delta} dt$$

tends to $A_{\delta}(\sigma)$ uniformly in a .

Moreover the proof for

$$A_{\delta}(\sigma, f(s)) \leq \frac{K_2}{\eta^{2\delta}} A_{\delta}(\sigma + \eta)$$

is interesting

Regarding your paper "ON ENTIRE FNCTION OF INFINITE

ORDER (R) REPRESENTED BY DIRICHLET SERIES" I sent you a letter dated 14 December 1966. You answered me as follows: "... As I do not have a duplicate copy of it, I have forwarded the paper to Mr. Jain for answering your questions". Recently I received a letter from Mr. Jain (21 June) asking me if this paper had been accepted by publication and then I have sent to Mr Jain a copy of my letter of the 14 December 1966. I do not remember to have received any other letter about this paper

I am

Sincerely yours

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P.S. I have also received your kind letter of the 28 August .