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Ilgar Shikar Jabbarov* (jabbarovish@rambler.ru), AZ200, Azerbaijan. *On some analytical properties of Diriclet series.* Preliminary report.

In the work is considered question on the connection between convergence and mean values of Diriclet series. We define the half plane of general Diriclet series

$$f(s) = \sum a_n n^{-(s)}; s = \sigma + it \quad (1)$$

with complex coefficients a_n , as a half plane of convergence of the series

$$\sum |a_n|^2 n^{(2\sigma)} \quad (2)$$

without any conditions over the function $f(s)$ defined by the series above. Let abssis of convergency is $\sigma(m)$. Our result is: Theorem. Let the function $f(s)$ defined by the Diriclet series (1) converges in the half plane of mean values defined as above. Then: 1) for any natural k we have

$$\limsup(1/T) \int_0^\infty |f(s)|^{(2k)} dt < C(\sigma, k),$$

when $\sigma > \sigma(m)$, where C is a constant. 1) $\mu(\sigma) = 0$ in this half plane. Those questions studied by a new measure introduced in the unite cube, which is connected with a metric and substantively differs from the product Lebesgue measure.

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