

On the convergence of Cesaro means of the Dirichlet integrals

Gogi Kezheradze

13/07/2022

The report considers uniform convergence of Cesaro means of the Dirichlet integrals, in the specific conditions. In particular, will be proved theorem, that if continuous $f(t)$ function on $[a, b]$ interval belongs to the E class at the same time and satisfies the condition

$$\int_{|t| \geq 1} \frac{|f(t)|}{t^2} dt < \infty,$$

then Cesaro means of the Dirichlet integrals converges to $f(t)$, uniformly on $[a, b]$.