**MATHEMATICS**

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# ON BOUNDARY PROPERTIES OF ANALYTICAL FUNCTIONS

**Abstract**

*Let $\nu$ be an arbitrary finite complex Borel measure on the interval $T_0 = [0, 2\pi)$, $u\left(re^{i\varphi}\right)$ its Poisson integral, and $\vartheta\left(re^{i\varphi}\right)$ a function harmonically conjugated with $u\left(re^{i\varphi}\right)$, $F(z) = u(z) + i\vartheta(z)$, $z = re^{i\varphi}$, $F(t)$ non-tangential boundary value of the function $F(z)$ as $z \to t = e^{i\theta}$. In the paper, the analogy of the Cauchy formula is proved for the analytic function $F(z)$ and the conditions satisfying boundary values $F(t)$ are found.*