ON DENSITY OF A STABLE UNIFORMLY CONVEX NORM

Michał Ryznar

Abstract: Let $(E, \| \cdot \|)$ be a uniformly convex Banach space and assume that its modulus of uniform convexity $\alpha(\cdot)$ satisfies the condition: $\alpha(\varepsilon) \geq const \cdot \varepsilon^n$, $n \in N$. We prove that for every stable symmetric measure μ on E the density of the distribution function $F_z(t) = \mu\{\| \cdot + z\| < t\}$, $z \in E$ is bounded on every interval $(0, T)$, $T > 0$. Under some additional assumptions we extend the conclusion to the whole half-line $(0, \infty)$.

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -;

Key words and phrases: -

THE FULL TEXT IS AVAILABLE HERE