ON THE RATIO OF TWO SETS IN REAL LINE

D. K. GANGULY AND DHANANJOY HALDER

Abstract. In this paper, assuming Martin’s axiom we show that there exists a Lebesgue measurable subset $A$ of the real line $\mathbb{R}$ such that the set $\{c \in \mathbb{R} : R(A,c+A) \text{ contains an interval} \}$ is non-measurable. Here the set $R(A,c+A) = \{\frac{a}{c+a'} : a,a' \in A, c + a' \neq 0 \}$. Also other two results on the ratio set of linear sets are presented.


Keywords and phrases: Bernstein set; Borel set; Difference set; Property of Baire; Ratio set.

REFERENCES