Alehyane, Omar; Asserda, Saïd; Assila, Fatima Zahra

Some applications of projective logarithmic potentials. (English) Zbl 07413051

Summary: In this note, we give some applications of projective logarithmic potentials. First we introduce the notions of projective logarithmic energy and capacity associated to projective kernel. We compare quantitatively the projective logarithmic capacity with the complex Monge-Ampère capacity on complex projective space and we deduce that the set of zero logarithmic capacity is of Monge-Ampère capacity zero. Further, we define transfinite diameter of a compact set and we show that it coincides with logarithmic capacity. Finally we deduce that there is an analogous of classical Evans’s theorem.

MSC:
31C10 Pluriharmonic and plurisubharmonic functions
31C12 Potential theory on Riemannian manifolds and other spaces
32U05 Plurisubharmonic functions and generalizations

Keywords:
projective logarithmic energy; Monge-Ampère capacity; projective logarithmic capacity; transfinite diameter; Chebyshev constant; polar sets

Full Text: DOI

References:

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