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Equilibrium problems associated with fast decreasing polynomials. (English) Zbl 1050.31002
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Summary: The determination of the support of the equilibrium measure in the presence of an external field is important in the theory of weighted polynomials on the real line. Here we present a general condition guaranteeing that the support consists of at most two intervals. Applying this to the external fields associated with fast decreasing polynomials, we extend previous results of Totik and Kuijlaars-Van Assche. In the proof we use the iterated balayage algorithm which was first studied by Dragnev.

MSC:

- 31A15** Potentials and capacity, harmonic measure, extremal length and related notions in two dimensions
- 30C10** Polynomials and rational functions of one complex variable

Cited in **22** Documents

Keywords:

Equilibrium measures; extremal support; balayage; fast decreasing polynomials

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