

A remark on the harmonic doubling condition

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Abstract

Let D be a bounded Jordan domain in \mathbb{R}^2 . Jerison and Kenig proved that a necessary and sufficient condition for D to be a quasidisk is that D and D^* satisfy the harmonic doubling condition. Their proof of sufficiency is not written out, and the treatment in the book by Garnett and Marshall also has some shortcomings. Based on personal communication with John B. Garnett we have been able to fill in all the details giving a somewhat new and efficient proof of Jerison and Kenig's result.