Riemann–Schwarz Reflection Principle and Asymptotics of Modules of Rectangular Frames

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Abstract

© 2014, Springer-Verlag Berlin Heidelberg. We investigate asymptotic behavior of the conformal module of a doubly connected domain which is the difference of two homothetic rectangles under stretching along the abscissa axis. Thereby, we give the answer to a question of Vuorinen.

Keywords

Asymptotics, Conformal module, Convergence to a kernel, Cross-ratio, Doubly connected plane domain, Elliptic integrals, Polygon, Prime ends, Quadrilateral, Reflection principle