The growth of gradients of solutions of some elliptic equations and bi-Lipschicity of QCH

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Abstract

We study the growth of gradients of solutions of elliptic equations, including the Dirichlet eigenfunction solutions on bounded plane convex domain. Several results related to bi-Lipschicity of quasiconformal harmonic (qch) mappings with respect to quasi-hyperbolic and Euclidean metrics, are proved. In connection with the subject, we announce a few results concerning the so called interior estimate.