Quasiconformal and HQC mappings
between Lyapunov Jordan domains

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Abstract. Let h be a quasiconformal (qc) mapping of the unit disk $\mathbb{U}$ onto a Lyapunov domain. We show that h maps subdomains of Lyapunov type of $\mathbb{U}$, which touch the boundary of $\mathbb{U}$, onto domains of similar type. In particular if h is a harmonic qc (hqc) mapping of $\mathbb{U}$ onto a Lyapunov domain, using it, we prove that h is co-Lipschitz (co-Lip) on $\mathbb{U}$. This settles an open intriguing problem.