
JAVAD MASHREGHI, Laval University

One-box Conditions for the Carleson measures for the Dirichlet space

We show that a finite measure μ on the unit disk is a Carleson measure for the Dirichlet space if it satisfies the Carleson one-box condition $\mu(S(I)) = O(\varphi(|I|))$, where $\varphi : (0, 2\pi] \rightarrow (0, \infty)$ is an increasing function such that $\int_0^{2\pi} (\varphi(x)/x)dx < \infty$. We also show that the integral condition on φ is sharp.

Joint work with O. El-Fallah, K. Kellay, T. Ransford.