

From the Beurling-Ahlfors extension to the geometry of Banach spaces

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Abstract

The Beurling-Ahlfors extension creates a planar quasiconformal map from a quasisymmetric automorphism of a line. Quasiconformal maps obtained in this way have an additional property which turns out to be relevant to a problem in the geometry of Banach spaces. The problem is to find Banach spaces that do not admit a uniformly convex norm, but have a structure that is an effective substitute for such a norm. All necessary Banach space terms will be defined in the talk.