The Berezin Transform on the Hyperbolic Ball

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In the talk I will introduce the Berezin Transform B_α defined on the space $L^1(B)$. The transform satisfies $B_\alpha f = f$ for every hyperbolic harmonic function in $L^1(B)$. In the talk I will discuss several properties of the operator B_α and provide a new proof of the following result: If f is bounded on B and satisfies $B_\alpha f = f$, then f is hyperbolic harmonic on B.

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