WEIGHTED THEORY FOR THE BERGMAN PROJECTION

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ABSTRACT. The Bergman space $A_2(\mathbb{D})$ is the closed subspace of $L^2(\mathbb{D})$ consisting of analytic functions, where $\mathbb{D}$ denotes the unit disk. One considers the projection from $L^2(\mathbb{D})$ into $A_2(\mathbb{D})$, such a projection can be written as an integral operator with a singular kernel. In this talk, we will present the recent advances on the one weight and two weight theory for the Bergman projection, in particular we will discuss the Sarason Conjecture for the Bergman space, sharp weighted estimates for the Bergman projection and a description of a B_∞ class that has been until now absent. This is joint work with A. Aleman and S. Pott from Lund University (Sweden).

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