

Restricted-type estimates on the Bergman projection

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Abstract: We obtain (weighted) restricted-type estimates for the Bergman projection operator on monomial polyhedra, a class of domains generalizing the Hartogs triangle. A restricted-type estimate is an estimate in the L^p -norm on an operator, which however holds only on characteristic functions. From these restricted-type estimates, we recapture L^p -boundedness results of the Bergman projection on these domains. On some monomial polyhedra, we show that the Bergman projection could fail to be of weak type (q_*, q_*) , where q_* denotes the right end-point of the interval of boundedness of the Bergman projection. This is joint work with Zhenghui Huo of Duke Kunshan University.